Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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LECTURE III.—PART III.[1]

ON PTOSIS AS AN EFFECT OF BRAIN DISEASE.

Conclusions from many facts relating to facial paralysis and glossoplegia against the admitted views about the mode of production of paralysis—Views of the lecturer as regards the origin of paralysis and localisation of motor centres—Facts showing that ptosis may occur on the side of a lesion in other parts of the brain than those containing the roots and nuclei of the third pair of nerves—Mistakes committed by those who explain cases of direct paralysis by the supposition that the decussation of the anterior pyramids did not exist.

I COULD add a great many facts to those mentioned in the beginning of this lecture on the subject of paralysis of the tongue,[2] but I think that it is quite unnecessary to do so, and that the following points have been fully established :—

1st. *That a paralysis of the face or tongue may appear on the side of the only lesion found in the brain, that lesion being in parts of that organ located outside or far from the nuclei of origin of the facial or hypoglossus nerves.*

2nd. *That a paralysis of the face or tongue may appear either on the same or on the opposite side of the only lesion found in the brain, whether that lesion is in some part of the pretended voluntary motor apparatus or in any other part of the brain.*

3rd. *That a paralysis of the face or tongue may appear in the same or in the opposite side of a paralysis of one or two limbs in cases in which a lesion is found only in one part of one of the cerebral lobes or of the base of the brain in front or above the parts that give origin to the facial or the hypoglossus nerves.*

The facts summarised in these conclusions are certainly decisive against the views of localisers who place the so-called psycho-motor centre of the face in a small part of the cerebral convolutions along the upper border of the fissure of Sylvius and at the lower extremity of the fissure of Rolando. These facts are also decisive against the view that each half of the face and tongue has its voluntary movements only by an action of the half of the brain on the opposite side.

It is clear that if any local paralysis produced by disease of the encephalic organs, not implicating the nuclei of origin or the fibres of the motor nerves that lose power, arose from the loss of function of the part diseased, most, if not all, the facts the conclusions from which I have just given could not have occurred. It is clear, therefore, that that theory of the mode of production or mechanism of paralysis must be rejected as being in direct opposition to a large number of facts.

On the contrary, it is clear also that the theory I have proposed is in perfect harmony with all the facts relating to glossoplegia and facial paralysis from cerebral disease, as well as it is also with all the facts relating to paralysis of limbs. I need not now insist (as I will soon have to do so at full length) on the details of this new theory. I will merely remind you that I consider very nearly every part of the brain as capable, under irritation, of producing paralysis anywhere—in one limb, in two, in three, or in the four limbs, in the tongue, the face, the eye, or in any part that the will can move; and that the paralysis is then due, not to the loss of the supposed function of the part diseased—not to a *cessation of action* of that part, but, on the contrary, to an *irritation*—i.e., *an action* of that part—irritation which, being propagated to the nerve-cells whose function is to generate movements in the muscles then becoming paralysed, stops the activity of those cells, and thereby causes the paralysis. I need not repeat here, as I will soon have to treat of this point at full length, that, according to the view I hold, the nerve-cells employed in the production of any voluntary movement are not, as localisers believe, grouped in clusters in certain limited parts of the brain, but that, on the contrary, they are disseminated in many parts of that organ, so that, as I will establish, any part can be destroyed without paralysis.

I will now proceed to show that conclusions similar to those I have drawn from facts relating to paralysis of the tongue or face flow out most forcibly also from facts relating to other muscles. I will first discuss the paralytic symptoms of some of the muscles of the eye, and especially of the levator palpebræ superioris, beginning with what relates to this muscle.

II. PARALYSIS OF THE LEVATOR PALPEBRÆ SUPERIORIS AS AN EFFECT OF DISEASE OF THE BRAIN.—That paralysis is more frequent than is supposed. In a slight degree, at least, it exists in most cases of recent hæmorrhage, and in many cases of softening of the brain. I will follow for the study of this paralysis the same plan as for glossoplegia. The first proposition I will try to establish is the following :—

1. *Ptosis may occur on the side of the only lesion or lesions found in the brain, in cases in which there was no appearance, or, at least, no mention, of alteration of the third pair of nerves, or its nucleus.*—If we were to believe some anatomists, especially Meynert,[3] we should have to look on the lenticular ganglion as the centre for the third pair of nerves. That distinguished Viennese anatomist describes fibres of the third pair of nerves as passing from their nucleus on one side into the crus cerebri of the other side, and thence going into the external corpus striatum (lenticular ganglion). According to Dr. D. Ferrier's experiments,[4] the galvanisation of a certain part of the superior and middle frontal convolutions in monkeys produces a raising of the upper eyelid. Dr. Ferrier, however, refraining in this case from the rashness he has shown as regards other pretended psycho-motor centres, has wisely abstained from concluding that that part of the brain is the centre for the voluntary action of the levator palpebræ superioris.[5] A French physician of great merit, Dr. Grasset,[6] was led by an interesting case to regard it as probable that the centre for the raising of the upper eyelid is in one or two convolutions bordering on the antero-temporal sulcus (Huxley). This localisation, somewhat different from that which other cases, collected by Landouzy,[7] seem to establish, is also quite different from that which Fritsch and Hitzig[8] had found from their experiments. All these views, grounded on a certain number of facts, are completely disproved by a great many other facts, and especially by those cases I will now mention, and in which there was a lesion far from the nucleus of the third pair of nerves, producing ptosis on the same side. I will divide the cases I have to speak of into two groups : first, those in which there was ptosis as well as paralysis of one or two limbs on the side of the lesion; secondly, those in which ptosis existed on the side of the lesion while the limbs were paralysed on the other side.

As regards the first group of cases of *direct* ptosis, with direct paralysis of one or two limbs, I will give a very short analysis of a number of facts. In a most important case of Scholz[9] there was disease of the cranium and an abscess in or near the *left* third frontal convolution. It was found that

[1] The first Lecture appeared in THE LANCET, vol. ii. 1876; the second in vol. i. 1877; and the first two parts of Lecture III. in February last, pp. 153 and 225.

[2] Feeling that I must hasten to finish this publication, I abstain from examining many points relating to paralysis of the tongue, but I think I ought to call the attention of medical observers to an interesting fact which, so far as I know, has not yet been noticed. It is that, not rarely, in cases of marked deviation of the tongue when it is put out of the mouth, there must exist not only a paralysis of the protruding fibres of the genio-glossus, but a paralysis also of the part of the transverse muscular fibres belonging to the same side, as I have then found the corresponding half of the tongue notably broader than the other half.

[3] Manual of Human and Comparative Histology. Edited by S. Stricker; translated by H. Power. (New Sydenham Society. Vol. ii., pp. 419 and 444.) London, 1872.

[4] The Functions of the Brain, pp. 142, 152, and 307. London, 1876.

[5] That able experimenter refuses to admit Grasset's supposition endorsed by Landouzy. See his Gulstonian Lectures in the Brit. Med. Jour., vol. i. 1878, p. 474.

[6] Progrès Médical, p. 406. Paris, 1878.

[7] See his able paper, De la Blépharoptose Cérébrale, in Archives de Médecine, p. 7 of the separate print. Août, 1877.

[8] Reichert und Dubois-Reymond's Archiv. fuer Anat. und Physiol., p. 756. Berlin, 1871.

[9] See Hayem's Revue des Sciences Médicales, vol. i., 1873, p. 692.

there was paralysis of the *left* limbs and drooping of the *left* upper eyelid. These symptoms disappeared after the issue of the purulent matter through the diseased bone. In a case I have already quoted, of Dr. Peter Eade's,[10] there was ptosis and paralysis of limbs on the *left* side, with considerable alteration of the *left* corpus striatum, and only a very slight lesion of the right one. In a carefully-recorded case of Dechambre's[11] there was drooping of the *right* upper eyelid, with paralysis of the *right* limbs. The *right* corpus striatum was destroyed, and a good deal of the *right* middle lobe was reduced to a reddish pulp. Valleix[12] found a complete paralysis of the *left* levator palpebræ superioris, with paralysis of the *left* limbs, in a case in which there was a clot of about two ounces over the *left* hemisphere.

Before passing to the second group of cases, I will say that it is impossible to reconcile the facts just related with the admitted theories regarding the production of paralysis. Those facts are in evident opposition to the received views on account of both the direct paralysis of limbs and that of the upper eyelid. I do not now intend to speak again of direct hemiplegia. I shall have to do so once more before concluding this lecture, but I cannot help saying that several writers and lecturers who lately, in England and America, have looked upon the explanation given by Mr. Hilton and Longet as the proper one for cases of direct paralysis, have committed the great fault of paying no attention to the state of our knowledge as regards the anatomy, physiology, and pathology of the decussating fibres of the anterior pyramids. Even if they could have pointed to cases of direct paralysis in which it had been ascertained that that decussation did not exist (and there is not one such case on record, while, on the contrary, Dr. Arthur Wiglesworth, of Liverpool, has seen a case of direct paralysis in which that decussation existed), they would thereby have proved nothing more than the possibility of co-existence of these two things—no decussation and direct paralysis. The ablest living physiologists,[13] following Magendie in this respect, admit that there are very few, if any, voluntary motor conductors in the anterior pyramids. A large number of clinical facts testify as clearly as experiments on animals against the view that those parts of the medulla oblongata are the principal channels between the will and muscles. Besides, the whole history of the secondary descending degeneration, as well as normal anatomy, shows that the decussating fibres of the anterior pyramids become parts of the lateral columns of the spinal marrow—a fact which clearly proves that they can hardly be used as channels for volitional orders to muscles, as everyone knows, or should know, that the lateral columns of that nervous centre have either no share, or hardly any, in voluntary movements.

The cases I have mentioned of direct paralysis of the levator palpebræ superioris cannot be reconciled, so far as their details go, with the admitted views on the production of paralysis. No doubt it might be supposed that some alteration of the third pair of nerves existed which has not been found. But I will answer that a lesion of the trunk of the motor oculis would have produced strabismus and dilatation of the pupil besides ptosis, and this last symptom was the only one noticed. It might also be supposed that a local affection of the branch of the motor communis going to the levator palpebræ superioris coexisted with the lesion found in the brain. This, however, cannot have been, as there was simultaneity in the appearance of the various symptoms, so that the only organic lesion known to have existed must have been the cause of all of them. Still more in the case of Scholz's, ptosis disappeared with the other symptoms when the cerebral abscess opened itself outside of the cranium.

The group of facts I have now to speak of consists of cases of alternate paralysis in which there was the usual cross paralysis of limbs, while the upper eyelid was drooping on the side of the lesion. I will mention as briefly as possible a small number of such cases, giving only the name of the authors I quote and the essential features of the case. 1st. Chapotin de St. Laurent[14]: complete drooping of the *left* upper eyelid, except for a time, after issue of pus from an abscess in the *left* anterior lobe; paralysis of the right limbs. 2nd. Dr. Sibson[15]: both upper eyelids drooped, but the *left* more than the other; paralysis of the right limbs; the white substance of the *left* hemisphere and the *left* corpus striatum were considerably inflamed and softened. 3rd. Romberg[16]: the upper eyelid hung loosely over the *left* eye; the right limbs were paralysed; the *left* corpus striatum presented a brownish-yellow softening, and the anterior and part of the middle lobes on the *left* side were softened. 4th. Rostan[17]: *left* eye half closed by drooping upper eyelid; paralysis of right limbs; cancerous tumour on surface of *left* posterior lobe, and two other slight alterations of that lobe.

No doubt there might have been, together with the cerebral lesion, in those cases, some alteration of the branch of the motor communis going to the levator palpebræ superioris; but as the brain disease was not of a syphilitic nature, and as the palpebral paralysis appeared simultaneously with the other symptoms, we have every reason to think that the cause of the direct ptosis and of the cross hemiplegia was the only cerebral lesion found and noticed. These facts, therefore, with those previously mentioned, show that a paralysis of one of the muscles of the eye can appear from a lesion in the same side of the brain, not involving the roots or branches of the motor communis.

[10] THE LANCET, vol. ii., 1857, p. 134.

[11] Bulletin Clinique, Revue Anal. des Sciences Méd., vol. i., p. 113. Paris, 1835-36.

[12] Annales Médico-Psychologiques, 2ème série, vol. iv., p. 132. Paris, 1852.

[13] See my paper on this subject in La France Médicale, Mai 15, 1878, p. 305. The arguments contained in that paper will be fully given in another part of this lecture, in which I will show also that the anatomical facts described by Flechsig (Die Leitungsbahnen im Gehirn und Rückenmark, 1876), instead of being favourable to the views of my opponents, would be decisive against them if the anterior pyramids were, as they believe, the channels between the will and muscles.

[14] Bulletins de la Société Anatomique, vol. xviii., pp. 157-62. Paris, 1843.

[15] THE LANCET, vol. i. 1866, p. 621.

[16] A Manual of the Diseases of the Nervous System, translated by Dr. Sieveking, vol. ii., p. 429. London, 1853.

[17] Recherches sur le Ramollissement du Cerveau, 2nde édit., p. 139. Paris, 1823.

Clinical Lecture
ON A
CASE OF HYDATIDS OF THE RIGHT LUNG, SIMULATING PNEUMOTHORAX.

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GENTLEMEN,—A clinical lecture is most useful when the subject is a case such as you are likely to meet with from time to time in your every-day work. Cases such as that I have to bring before you to-day are rare, and you may never see another like it; but some of you have followed it with so much interest that I am sure it will not be unprofitable to put into form the lessons we have together learnt from it. I should have preferred taking, first, two cases of effusion into the pleural cavity which we have watched, one of which has been treated by aspiration, the other without; so as to have taken you from a simple and common form of disease to one which is rarely met with, and whose symptoms and signs constitute a highly complex problem. Our patient, however, is dead; and it is better to study the case while it is fresh in our recollection, and we have not to depend entirely on notes, which, full and accurate as they are in Mr. Tucker's record, cannot, some weeks hence, give us the vivid picture now present to our minds of the poor suffering girl who has been the object of so much real anxiety to those of you under whose immediate care she was.

First of all, let us look at the lungs and liver, which are here for inspection; they are the only parts with which we need concern ourselves.

The liver is rather large, weighing 4 lb. 6 oz. The upper surface of the right lobe was firmly adherent to the diaphragm at its posterior part, and a piece of the diaphragm, roughly circular in shape and about two inches in diameter, remains attached to the liver, having been cut away to avoid tearing the organ. This marks the situation of a subjacent hydatid cyst, of about the size of an orange. There is nothing remarkable about it, and the only particular I need mention is that it contained only two or three small secondary cysts.

The right lung was firmly adherent to the walls of the

pleural cavity at every part. The pleura over a great part of the surface was thickened and red, but the surface which had rested on the diaphragm was thickly coated with curdy, yellow pus, which had formed a localised empyema here about half an inch deep, and exudation of the same character extended upwards on the costal aspect for a short distance, averaging about an inch from the base of the lung. These particulars are less conspicuous now that the parts have been kept for a few days, but the substance of the lung is seen to present an enormous cavity, large enough to contain a fœtal head or a pair of fists, and in this the thick, white gelatinous wall of a hydatid cyst, which had originally excavated and filled the cavity, but which was found after death lying collapsed within it, together with muco-purulent matter, and broken-down cheesy material. Its internal surface presents a number of nodules, and it contained a few loose daughter cysts. Water injected into the bronchial tube entered the cavity freely by numerous small apertures.

The situation and relation of the cavity are of considerable interest. Above it there is a portion of the apex of the lung, about an inch in thickness, condensed a little, but containing air. At a part which we may suppose to have been about the level of the fourth rib, all lung-structure had disappeared except near the root, and the walls of the cavity all round the thoracic parietes consist of little more than thickened pleura. Down the mediastinal aspect, behind the root, was a cushion of lung little damaged, and at the base there was a certain amount of lung-substance, but this was consolidated by long-standing pressure and recent inflammation. The cyst-wall touched the diaphragm over an area of about two square inches near the posterior border.

The other lung was normal in structure, but the bronchial tubes were filled with frothy mucus, and the lining membrane was deeply stained. A small hydatid membrane also was found impacted in the bronchus, carried thither no doubt by an inspiratory current of air.

We shall see how these pathological conditions explain the symptoms observed during life.

The patient, a girl aged nineteen (I am now making use of Mr. Tucker's excellent notes) was admitted into the hospital on September 19th. The family history was good; her personal history free from attacks of serious disease, and from evidences of weakly or damaged constitution. Two months previously, however, she had pain in the chest and right side and between the shoulders; she had also for six weeks been suffering from diarrhœa, and had been in the country for a fortnight on account of it, but her strength did not appear to have been greatly affected. Indeed, judging from her appearance, she must have been the picture of health up to the time of the present illness. Her face and limbs were round and full, and her colour was good. Nine days before her admission—i. e., Sept. 10th—she felt something give way in her chest or epigastrium while she was carrying a child, and had just run upstairs with it in her arms. She thinks she was insensible for two or three minutes. She had to take to her bed at once, and had been confined there ever since, except for an hour or two occasionally. During these nine days she had severe pain in the chest, vomited frequently, was unable to keep food on the stomach, and had diarrhœa; she suffered also from severe headache, sleeplessness, and feverishness.

On her admission, the above, with the exception of the vomiting, were the symptoms complained of, and she was seen to be suffering from dyspnœa. The temperature was 102·5° in the evening, 101·8° next morning; pulse 120; respiration 38.

When I first saw her on the 20th I was at once struck by the aspect of distress and by the frequent breathing; and on the chest and abdomen being exposed, it was at once seen that the breathing was exclusively thoracic; the diaphragmatic movements were restricted, so that the abdomen was almost passive during respiration, while the expansion of the thorax was excessive. That this was not due to peritonitis was evident from the absence of tenderness and the supple and natural feel of the abdomen generally. The right hypochondrium, however, and the epigastrium were indicated by the patient as the seats of severe pain, and there was great tenderness on pressure here and across the abdomen at this level to the left hypochondrium, so that the size of the liver and spleen could not be estimated by palpation. The right side of the chest was in pain, and its movement scarcely so free as that of the left. Over the left lung the resonance was normal and the respiratory murmur greatly exaggerated, suggesting at once the idea that this lung was compensating for deficient respiration elsewhere, and doing the work of both. On the right side, over the front of the chest, the percussion-note was peculiar, and the respiratory murmur was wanting; posteriorly the resonance was of a lower pitch above the spine of the scapula than on the left side, while below this level there was dulness. There was little entry of air over the dull area, and at the lower part scanty coarse crepitation was heard. The vocal resonance was exaggerated.

We may interrupt the relation of the case for a moment to say how far we were able to carry the diagnosis at this period. We set aside definitely enteric fever, which had been mentioned when the patient was brought to the hospital, on account, no doubt, of the diarrhœa and abdominal tenderness, though spots also had been found, and the tongue was suggestive of this disease. We excluded also pneumonia: the acute symptoms had lasted too long; there was too much pain, and it left unexplained the thoracic respiration and many of the physical signs. Diaphragmatic pleurisy, again, though it was obviously present, causing the breathing to be thoracic, was inadequate to account for the whole of the phenomena. Pneumothorax, with consecutive pleurisy, suggested itself, but the resonance, though peculiar, was not tympanitic, and a tap on the chest-wall while the stethoscope was applied at another point did not give the characteristic ring. When the back of the chest was examined the dulness below the scapula, and especially the presence of distinct though scanty crepitation at the base of the lung posteriorly seemed to exclude pneumothorax, and prevented further tests from being applied, as the crepitation showed that the lung was in contact with the chest-wall at a part from which it would, unless held down by adhesions, be far removed were the pleural cavity full of air. All we could say then was that the disease was in the right lung, that it was acutely inflammatory, and that the inflammation involved the diaphragm, and perhaps the peritoneum at the upper part of the abdomen. A grave prognosis was given.

For the next two days the patient had less pain and felt better. The pulse on the 23rd had come down to 108, and the respiration to 29; the temperature, however, was high, especially at night, 103° F. and 104·5°; in the morning falling to 100·4° and 100·8°. It was found that she could lie more comfortably on the right side than on the left, but that she had most pain when lying on her back. It is the rule in acute painful inflammation in one half of the chest that the patient can lie more comfortably on the affected side than on the other, as the weight of the body restrains the movements which give rise to pain, and free play is left to the healthy lung. Usually, however, the recumbent position is also comfortable, and the sufferer lies alternately on the back and on the affected side. In this respect, therefore, there was something exceptional.

On the evening of the 23rd she was very much worse; the pain in the right side was most acute; the pulse rate was 160; the respiration 60 per minute, and short and catching.

I was called to her on the evening of the 24th, having been out of town in the meantime, and found the anxiety of my resident only too fully justified. More severe suffering could scarcely be witnessed, and the extremely frequent and weak pulse and the rapid catching breathing indicated imminent danger. An examination made now revealed nothing new in the abdomen, which, as before, took little or no part in the respiratory movements, so that respiration was altogether thoracic. The left lung was doing supplementary work, and its respiratory murmur was greatly exaggerated. Over the front of the right lung the resonance was excessive, without being markedly tympanitic, down as far as the fifth rib, where there was an abrupt transition to absolute dulness; nothing definite was made out by auscultation; there was certainly no respiratory murmur, but no distinct abnormal sounds were present, while the loud breath sounds from the other lung were heard. The apex of the heart was displaced to the left of the mamma, where it could be felt beating violently. When the patient was raised into the sitting posture, the level of dulness on the anterior aspect was found to rise about an inch. A minute examination was not justifiable in the patient's condition, and after ascertaining that there was dulness and silence over the lower part of the right thorax posteriorly, attention was directed simply to the application of a test for pneumothorax, the presence of which had been suggested by the signs already enumerated. The ear or stethoscope was applied to the back of the chest about the mid-scapular

level, and at a corresponding point anteriorly a coin was pressed against the thoracic wall and slightly struck by the edge of another. The sound rang through the chest, and it was almost as if the ear were against a gallon jar which had received a smart tap. The peculiar ring was recognised by the least practised ear, and the difference on the two sides was unmistakable. Here apparently was an explanation of the whole of the phenomena. When the sudden pain and sensation as if something had given way were felt, after hurriedly carrying a child upstairs, rupture of the lung had occurred, probably at some point previously diseased, and air had escaped into the pleural cavity. On this there had been pleurisy with formation of pus, and the condition with which we had to deal was pyo-pneumothorax. This was our inference. Now that we know that the condition was quite different, we can see that we neglected certain indications—the extensive dulness over the back of the right chest, the crepitation at the base of the lung. The history, however, was exactly that of pneumothorax going on to the complication of purulent effusion, and the physical signs were corroborative of the conclusion that this was the condition present. When air obtains entrance into the pleural cavity by rupture of the lung or otherwise, the lung collapses; and we have a kind of drum—a large air-containing cavity, with walls easily thrown into vibration, yielding on percussion and auscultation signs such as we might expect. There is excessive, or rather unnatural, resonance, sometimes, but by no means always, tympanitic; occasionally, indeed, the percussion note is of a character which might by an inexperienced observer be named dull. I may remind you also that we may have tympanitic resonance over the chest without pneumothorax. When air passes into and out of the cavity with every breath there will be amphoric respiration, which sounds like blowing into a large bottle or jar. This is not common, however; and the chief sign is that we relied upon—the ringing echo which is heard when the ear is applied to one part of the chest and a smart tap is given to some other part, the most characteristic effect being obtained when a couple of coins are used in the manner described. Frequently the action of the heart is heard across the pleural cavity, accompanied by a similar ring. When with air there is fluid, which in these cases is usually pus, splashing as of water in the two-gallon jar, to which we have so often referred, may sometimes be heard when the patient is quickly shaken. This "succussion" phenomenon we failed to elicit in our case.

Having made the diagnosis of pyo-pneumothorax, the next question was what should be done. Clearly the first thing needed was that the pain should be relieved, and half a grain of morphia was at once injected under the skin. But as it seemed possible that there might be great tension of the air in the pleural cavity from the opening in the lung being valvular, and allowing air to enter during inspiration, while it prevented its escape on expiration, and that this tension was the cause of the excessive pain, an aspirating needle was ordered to be introduced, and air or fluid to be drawn off. The morphia gave great relief, and the patient had a good night, but the attempt at aspiration only resulted in the abstraction of a few drops of sanguineous fluid, which, under the microscope, showed blood-corpuscles and large exudation-cells.

Next day she was better, and she continued to be much easier from the 25th to the morning of the 30th, this being entirely due to the suppression of pain by the hypodermic administration of morphia; and the pulse became less frequent, and the respiration less hurried and painful, while the temperature, on the contrary, continued to range high, reaching 103° on most evenings, on one 104°. Free, but not profuse, expectoration of muco-purulent matter set in rather suddenly on the 26th, and continued; it was taken to be the pus from the pleural cavity, making its way out by the opening which had admitted the air. The obvious presence of mucus was remarked, but the pus of an empyema escaping by a bronchial tube acquires much mucus in its passage outwards, poured out no doubt by the irritated bronchial and tracheal mucous membrane, so that unless the amount of pus is very large, it becomes more or less glairy. The same thing was recently noted in the pus of a vertebral abscess, which made its way into a bronchus in the case of a little boy under my care in the Albert ward. No hydatid membranes were seen in the sputum; they could scarcely have escaped observation had they been present in any quantity, as the expectorated matter was carefully scrutinised at every visit.

During these five days we several times considered the question whether we should treat the case as we should have done one of simple empyema, by making a free opening into the chest through one of the lower intercostal spaces, and trying to drain and cleanse the pleural cavity. My experience of this practice in pyo-pneumothorax has been unfavourable, and it was rejected, especially as the pus was escaping, and the heart and mediastinum were not displaced so far to the left as to indicate pressure, but only to the extent to which they would be carried by the elasticity of the left lung on air being admitted into the right pleural cavity, as has been beautifully demonstrated by Dr. Douglas Powell.

A few observations worthy of record were made during this period. The remarkable amphoric ring was several times demonstrated, but we could not obtain splashing sounds by gently shaking the patient. One day sibilant cooing râles were heard over the front of the left lung, but more distinctly over a small area at the apex of the right. This we supposed to be due to adhesions which had prevented the collapse of this part of the lung. Had not the sounds been louder in the diseased side they would have been considered to be conducted from the sound lung, as was a loud rhonchus produced in the left, but heard also over the right side of the chest.

On the 30th the patient became rapidly worse, and died. We have already seen the results of the post-mortem examination. It remains only in a few words to show how the condition we found simulated so closely the signs of pneumothorax. This, indeed, will be plain to all of you.

The hydatid parent cyst was burst by the effort of carrying the child. As its contained liquid escaped—whether rapidly or slowly we do not know, for the evacuation must have taken place before the patient came under our observation, but probably it was during the vomiting—as the hydatid fluid escaped, the cyst would collapse in folds to the lowest part of the cavity in which it was lodged, where it would lie together with the inflammatory products exuded. The cavity itself could not fall in, since it was held open by adhesions all round, and as the hydatid fluid escaped its place would be occupied by air entering through the patent bronchial tubes we saw at the post-mortem examination. Although, then, we had not the pleural cavity itself containing air and pus, we had a cavity with similar contents, smaller, it is true, and having an additional thickness of wall, but still of enormous size, and capable of giving similar physical signs.

We may, in conclusion, ask two questions. Was a diagnosis possible? and could we have done more for the patient had an accurate diagnosis been made? I will answer the latter question first. Had I known exactly the state of things I should certainly have ordered a free opening to be made into the cavity, and I am sure that we should thus have given the poor girl a better chance of recovery. In reply to the first I would say that a diagnosis, though difficult, was, no doubt, possible. I say so because I think that perhaps you or I might make out a similar case were such a one to come before us. In order, however, to interpret the complex signs and symptoms offered by disease, we must be prepared by personal experience, or by acquaintance with the recorded experience of others, and until this case came under my care I did not possess the knowledge that hydatid disease could so nearly simulate pneumothorax.

ON THE

PROBABLE CAUSE OF THE DIMINUTION OF CHIMNEY-SWEEPS' CANCER;

WITH TWO CASES IN WHICH THE DISEASE ORIGINATED IN GLANDS.

BY GEORGE LAWSON, F.R.C.S.,

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CHIMNEY-SWEEPS' CANCER is an epithelioma of the skin due to the irritation of soot. It most frequently attacks the scrotum, but it may occur in other localities of the body. The disease undoubtedly has considerably diminished of late years, and this diminution has been attributed to the passing of the Chimney-sweeps Act, which prohibited children from going up chimneys. That the ascending chimneys

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was not the chief cause of the disease is perfectly clear from the fact that the majority of chimneys were always swept by boys, and the patients affected by epithelioma of the scrotum were almost invariably adults. Pott, by whom the disease was first described, says, "I never saw it under the age of puberty";[1] and H. Earle, in a paper on Chimney-sweeps' Cancer,[2] states that "the greater proportion of the cases which I have seen have occurred between thirty and forty; I have seen instances between twenty and thirty, and only one at the age of puberty. A solitary instance is recorded by my father, where it occurred in an infant under eight, but I have never met with a similar case." Further on in the same paper he says, "Children, who form the principal part of those engaged in the trade, are not liable to this affection." We may, then, fairly conclude that the passing of the Chimney-sweeps Act has really had no influence in controlling the disease. The real cause of the diminution of cases of chimney-sweeps' cancer may, I think, be traced to the depreciation in the value of soot. When soot realised a high price, the journeyman sweep had to gather up all that came down the chimney, and everything that became mingled with the soot, such as fragments of mortar, small cinders, &c.; soot was too valuable for any to be left behind. Before this soot could be sold, it had to be sifted, a work of too great labour for children, and consequently performed by men. In sifting, the man had to stand in a semi-bent position, and with the sieve laden with soot and rubbish swayed backwards and forwards and from side to side. By these movements there was a constant friction between the soot-covered clothes and the scrotum, and as the work was very laborious, the sweat that was induced in the scrotal region added to the irritation caused by the friction and the soot. Now that soot fetches but a comparatively small price, it no longer pays to sift it, and, with the abolition of this duty, chimney-sweeps' cancer has materially diminished. That the friction of soot with the skin is the exciting cause of the disease was shown in the case referred to in Mr. H. Earle's papers, who relates "the remarkable instance of its occurrence on the wrist of a gardener, who was every spring employed to distribute soot for the destruction of slugs." Although chimney-sweeps' cancer has been so much diminished in frequency from the doing away with soot-sifting, yet cases will always appear from time to time, as neglect of proper daily washing, and the continued use of clothes saturated with soot, will certainly yield some victims to this terrible disease. The scrotum will probably continue to be the favourite site of the cancer; for whilst it is exposed to the friction of sooty clothes, and its rugæ collect the soot, with the negligent and unclean it is a part which frequently escapes for a long period unwashed.

Chimney-sweeps' cancer, as a rule, originates in the skin; but to this there are occasional exceptions. In two cases which I have had under my care in the Handel ward, Middlesex Hospital, the disease started in the glands in the groin, the skin became adherent to the infiltrated glands and then ulcerated. The ulceration extended, and each patient died from hæmorrhage caused by the ulceration involving the main vessel, in the one case the femoral and in the other the external iliac artery.

Thomas D——, aged fifty-six, has been a sweep all his life. Born in a workhouse, he states that at the age of four years and a half he was sent out as a chimney-sweep's boy, to learn his business of climbing chimneys. He had an attack of rheumatic fever fourteen years ago, and about three years since he was an in-patient in the hospital on account of hæmorrhage into the bladder, which came on suddenly. He passed a small quantity of blood by the urethra, and was afterwards unable to micturate. A catheter was passed, and a quantity of bloody urine and blood-clot came away. The blood gradually disappeared from the urine, and in a fortnight he left the hospital apparently quite well. He has not had a recurrence of the hæmorrhage since, and has been able to follow his business as a sweep up to the present illness.

In July, 1877, he discovered a small hard swelling in the left groin beneath the skin, which was freely movable over it. The swelling, which was evidently an enlarged gland, increased in size, and other glands in the same locality became hard and large; and he now began to feel what he describes as a gnawing pain. He then became an out-patient at the hospital, and continued as such until October, when, on account of the increase of the disease, he was admitted as an in-patient.

State on admission.—A spare man, and beginning to lose flesh. From his long-continued occupation as a sweep he had acquired a peculiar dusky aspect, as if soot had been thoroughly ingrained into the skin of the body. In addition to this general duskiness of the skin there were a number of dark, almost black, pigmented spots on the body. The scrotum was normal in appearance. Occupying the inner half of the left groin, and below Poupart's ligament, was a firm, nodulated, fixed tumour. The skin over it was brawny, infiltrated, and partly adherent to the tumour, which was more or less fixed to the tissues beneath it. Upon its summit was a small ulcerated opening.

The induration of the skin and enlargement of the glands steadily increased, and the ulceration extended. On Nov. 29th the report states that the induration and swelling now reach along Poupart's ligament to the anterior spine of the ilium, and downwards into the fold between the scrotum and thigh to a part internal to the femoral vessels. There is a large ulcerated opening in the centre of this mass, and the skin which is not ulcerated is red and adherent to the parts beneath, and softening down in places. Continuing to get worse, in the beginning of March a large quantity of infiltrated tissue sloughed away, leaving a deep irregular cavernous ulceration in Scarpa's triangle, with a very offensive discharge. The man complains of much pain down the thigh, which is slightly œdematous. His appetite is failing. The treatment has consisted in antiseptic and anodyne dressings, and opium internally, sufficient to keep him tolerably free from pain during the day and to give him sleep at night. The ulceration continued to extend, and occasionally he had slight attacks of hæmorrhage from the wound, which were easily controlled. On June 29th he was seized with profuse hæmorrhage, and died.

At the post-mortem examination a large ulcerated opening was found in the superficial femoral artery.

I had an exactly similar case in the same ward three years ago. The patient was a sweep. The disease in his case commenced in the inguinal glands above Poupart's ligament. The skin became involved and ulcerated. The ulceration extended until there was a large chasm in which the hand might be placed, and the poor fellow died suddenly from hæmorrhage from the external iliac artery.

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[1] The Chirurgical Works of Percival Pott, by James Earle, vol. iii., p. 257.

[2] Med.-Chir. Trans., vol. xii., p. 296.

CASE OF MEDIASTINAL TUMOUR.[1]

BY ARTHUR W. FOX, M.B.,

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W. O——, a certificated schoolmaster, aged twenty-four, well nourished, of fair complexion, middle height, and great intelligence, had enjoyed fair health until four or five months back, when he began to experience a feeling of becoming choked, and also had pain in his upper sternal region, for which he consulted Dr. Sutton, of the London Hospital, who told him that he had something wrong with the glands of his chest, but what he failed to recollect. Had led a very steady life; never had syphilis; family history strumous. On Jan. 27th, 1878, he consulted Mr. Biggs, complaining of cough, some little expectoration, no subjective dyspnœa, but wheezing. Under treatment he seemed to improve until Feb. 13th, when dyspnœa came on, which on the 14th increased in severity.

On the 15th Mr. Biggs asked me to see him. I found him sitting up in bed; orthopnœa; left elbow on knee; hand supporting forehead; face dusky; countenance anxious; pupils equal, if anything dilated; inspiration loudly stridulous; voice hoarse; cough shrill and paroxysmal; expectoration scanty and catarrhal, never of the jelly-like kind; dyspnœa of inspiratory type, continuous, with exacerbations of great severity; unable to swallow solid food; some clubbing of finger-ends and incurvation of nails; neck at base swollen, and felt elastic; it was impossible to get one's finger into the sternal notch; both lobes of thyroid equally enlarged; external jugulars distended to nearly two-

[1] Paper read before the Bath Pathological Society.

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thirds the size of one's little finger; there was no visible pulsation in them; veins of arms somewhat distended; no dilatation of veins of chest-walls; there was some amygdaloid enlargement of glands in inguinal regions, none to be felt in axillæ and neck. On examination of chest there was dulness upon percussion, with markedly increased sense of resistance over manubrium; this extended laterally on the right over a surface included within a line drawn from a point nearly half an inch outside the sterno-clavicular articulation to third cartilage, on the left over an area bounded above by the clavicle, below by the third rib, externally by a curved line from centre of clavicle to third rib. There was an entire absence of all thrill, pulsation, murmur of any kind, or accentuation of the aortic second sound in the dull area; the percussion note was fair everywhere else over front and sides of chest; the lower half of each back was rather hyper-resonant; the resonance in supra-spinous fossæ was equal; there was no interscapular dulness; inspiration all over the chest was loudly stridulous, expiration being prolonged and here and there accompanied by a sibilant wheeze; the heart's apex was in its normal position; the vertical cardiac dulness was continuous with the dull area above the third rib; there was no increase of the transverse diameter; the heart-sounds were pure and free from murmur; his radial pulses were of equal volume, 120, small, hard, and regular; other systems were normal. He was ordered to take three grains of iodide of potassium every four hours, to inhale hydrocyanic acid vapour, and to paint the area of dulness with equal parts of tincture and liniment of iodine. This gave him considerable relief for a time; his breathing became easier, and he was able to swallow solid food. This amelioration of his symptoms continued up to March 5th, when he lapsed into his former condition.

On March 7th I saw him again with Mr. Biggs. He was in bed. His attitude, appearance, and symptoms were the same as when last seen, excepting that the distension of his jugulars was not so marked, and distinct pulsation occurred in them during the last half of inspiration. His pulse was 144, of the same character as before; there was no enfeeblement during inspiration. His larynx felt rather tender when handled. There was the same dulness and sense of resistance on percussion over the manubrium; on the left side, this was bounded superiorly by the clavicle, inferiorly by the third rib, and on the outer side by a line from the junction of the inner with the middle third of the clavicle to the third rib. There was no abnormal dulness in any other part of his chest. He got gradually worse. Mr. Biggs on two occasions found that his temperature reached 100° Fahr. He died on March 20th.

An examination of the body was made by Mr. Biggs twenty-six hours after death. It was well nourished; rigor mortis strongly marked; animal heat not altogether gone. On removing the sternum, a large, hard, solid mass, of a yellowish-white colour, was found situated in the anterior mediastinum. It measured 3½ in. vertically, 2½ in. transversely, and 3½ in. antero-posteriorly. It was not adherent to the sternum, but was firmly attached on each side to the cartilage of the first rib, especially on the right side; it was also partially adherent to the upper lobe of the left lung; behind, it was easily detached with the finger. Excepting the heart and pericardium, the whole of the structures of the anterior and middle mediastinum were embedded in the growth, the nerves being quite indistinguishable. The large vessels springing from the arch of the aorta were much diminished in calibre. The superior vena cava was completely obliterated, it being impossible to pass even a small probe. The trachea was embraced on two-thirds of its circumference by the growth. The left bronchus was somewhat narrowed. The pericardium contained a small quantity of clear fluid. The heart weighed 8½ oz.; walls thickened; cavities and valves normal. The left pleural cavity contained five pints of bloody fluid. The inner margin of the upper lobe of the left lung was infiltrated for two-thirds of an inch with the same growth as in the mediastinum, and scattered throughout this lobe were a few nodules of the same. There was some recent lymph on the lateral middle third of the surface of this lung, and also some on the pleural surface of the chest-wall at a corresponding point. The lower lobe of the left lung was collapsed; there was no apparent emphysema. The right lung was healthy. Liver normal. Other organs not examined. Mr. Field, resident medical officer at the Royal United Hospital, kindly undertook the microscopic examination of the mediastinal growth. He found it to consist mainly of fibrous tissue, with here and there small strands of lymphomatous tissue.

As to the diagnosis of the patient's condition, any opinion that the dulness in his left infraclavicular region was due to tubercular consolidation was negatived by its extending across the middle line to the right, its non-extension into the acromial angle, the absence of dulness in left supraspinous fossa and scapular region, the apparent integrity of right lung, and, most crucial objection of all, the evidence of pressure upon the large vessels and trachea. The idea of aneurism was rejected on the ground of the patient's age, and there being no history whatever of alcoholism, syphilis, physical strain, or rheumatism, also the markedly increased sense of resistance upon percussion over the dull area, and the total absence in it, or upon its confines, of all pulsation, thrill, vascular murmur of any kind, or accentuation of the aortic second sound. On the other hand, was it a case of mediastinal abscess, similar to a case Dr. Walshe alludes to in his work "On Diseases of the Lungs," where, in conjunction with suppurating cervical glands, a man had all the physical signs of a solid non-aneurismal tumour behind the manubrium, and in which, through a partial liquefaction of a portion of the tubercular mediastinal mass, there was, as in the case of W. O——, a diminution of the area of dulness towards the end of his life? In W. O——'s case I imagine this to have been due to the removal through treatment of some associated local consolidation of left lung. Da Costa also mentions, in his "Medical Diagnosis," a case of his own where an abscess of the mediastinum closely simulated an aortic aneurism in the pain, percussion dulness, dyspnœa, dysphagia, and altered voice, the only point of distinction being an absence of pulsation. The patient recovered, the abscess breaking internally, and large quantities of pus being expectorated. W. O——'s family history of struma gave some apparent support to such a view of his own case, but there was no history of injury to his chest-walls, neither was there any reason to suppose that his ribs or sternum were diseased; besides, his pain was not so severe as it would probably have been had his case been one of mediastinal abscess; in addition, there was no hectic, neither, as far as I could make out, did altering his position produce any effect upon the area of dulness. The opinion which I therefore expressed, and in which Mr. Biggs concurred, was, that W. O—— was suffering from a tumour in his mediastinum, probably of a malignant nature—a diagnosis which was completely verified by the post-mortem examination.

AN UNUSUAL CASE OF STRANGULATED FEMORAL HERNIA; WITH REMARKS.

BY WILLIAM DUNNETT SPANTON,
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FOR the following notes of this case I am indebted to our present house-surgeon, Mr. W. A. Frost.

Charlotte S——, aged thirty-nine, married, having four children, was admitted into the North Staffordshire Infirmary, under the care of Mr. Spanton, on Feb. 17th, 1878, at 12.30 P.M. Had reducible femoral hernia on the right side for three years; several times had difficulty in reducing it, with pain and vomiting. Has worn a truss two years. The hernia descended on the 16th (the day before admission), between 3 and 4 P.M. She was unable to reduce it. Vomiting occurred in the evening, and several times during the night Taxis was applied by a medical man on the evening of the 16th and morning of the 17th. Bowels relieved last on the morning of the 16th.

On admission, there was a tense swelling, of the size of a walnut, immediately below Poupart's ligament; on this she was wearing a truss. Pulse quick, small, and weak; tongue moist, coated in centre, clean at edges. Considerable abdominal pain, chiefly in right side and at umbilicus. Ordered thirty minims of tincture of opium; ice to the hernia. She vomited a small quantity of clear fluid. At 3 P.M. herniotomy was performed by Mr. Spanton. The sac contained half an ounce of bloody clear serum; omentum and small knuckle of intestine congested, but retaining its natural gloss. Tight constriction at crural ring. After division of this, the bowel and omentum were easily returned. Ordered

half a grain of opium powder every four hours. — 9 P.M.: Feels comfortable; no pain or vomiting.

Feb. 18th.—Slept fairly well. Menses appeared. Slight pain in lower part of abdomen throughout the day; no tenderness.

19th.—Not much sleep, in consequence of the pains, which came on every quarter of an hour, and lasted two or three minutes. Temperature 102°; pulse 130, weak. Wound quiet. Slight tenderness in right inguinal region. Abdominal muscles move freely in deep respiration. — 9 P.M.: Pains rather more frequent. Fomentations ordered.

20th.—From 2 till 4 A.M.: Great pain in right inguinal region. Ten leeches applied, which gave great relief. — 9 A.M.: Temperature 101·4°; pulse 130; tongue moist, coated in centre. Abdominal walls moving freely; soft; no pain. 1 P.M.: Pain returned, but less violent than during the night. An enema of salt and water was followed by two rather free actions of the bowels. Hypodermic injection of morphia ordered instead of pills.

21st.—9 A.M.: Slept well. Slight redness round wound. Lowest suture removed. Slight cough; pain in coughing, not otherwise.—3 P.M.: Vomited; repeated several times in course of afternoon and evening; fluid of brown colour, not offensive. To have ice to suck.

22nd.—A bad night; vomited frequently. Eyes sunken. Induration round wound; all sutures removed, giving exit to a few drops of pus. Tongue moist; brownish fur in centre. Patient vomited frequently throughout the day; fluid of a darker colour.

23rd.—Bad night. Tongue moist. Throughout the day she vomited about every five or ten minutes; fluid welled up into mouth with hardly any retching. Free from pain.

24th.— No sleep. Coffee-ground vomiting, with faint fæcal odour. At 11 A.M. vomiting ceased. In the afternoon the bowels were moved twice, the motions being copious and fluid. At 5 P.M. she became very restless, and at 6.30 died.

Necropsy, twenty hours after death.—No union of wound; sac empty. Peritoneum intensely congested throughout. No lymph or stickiness. Small intestine, six inches from ileo-cæcal valve, *adherent for half an inch* to abdominal wall, above and to the outer side of the femoral ring. At this point the gut was bent at an acute angle; the portion below was empty and contracted, that above dilated. The adhesion readily gave way, leaving a superficial roughness on the corresponding surfaces. For about three inches in the neighbourhood of the adherent point the intestine was of a darker colour than elsewhere; this faded off gradually above and below. The mucous membrane was of a darker colour than natural throughout, and near the adhesion was of a slate colour, but retained its normal consistence. There was no mark of any constriction on either surface; nothing to indicate what portion of the omentum had been in the sac.

There are several points of interest in this case. The first that strikes one is the fact of a strangulation of a femoral hernia of recent occurrence requiring operation. As we all know, it is in cases of femoral hernia that taxis more often fails; but I am inclined to believe that when this method is had recourse to sufficiently early—before the hernia has become tense and swollen—there is much less difficulty in reducing such herniæ than is usually stated. For my own part I have seen a considerable number of cases of strangulated femoral herniæ, but almost the only cases in which an operation has been required have been infirmary ones or consultation cases, in which, as a rule, there has been considerable delay.

In this instance the hernia had been down about twenty-four hours when the patient was admitted into the infirmary, and, as taxis had been previously tried by a surgeon who had seen the patient, I made no further attempt until she was under the influence of ether. Failing then, I at once operated. Now, although it is always desirable, if possible, to avoid opening the sac, in cases of femoral hernia more especially, this seemed to me one of those cases in which it was better, I mean safer, to do so. The hernia was very tense, and the patient had worn a truss upon it up to the time of admission. There was, therefore, a probability that the bowel and the sac would be more or less inflamed or injured, and it was consequently a safer course to see its condition, and act accordingly. As it proved, however, the bowel appeared congested simply; the surface was perfectly smooth, and the fluid in the sac, although discoloured somewhat, was quite clear, and there were no indications of any existing inflammation, either about the bowel or the sac. The constriction was tight, and occasioned by the crural ring itself. There were no bands within the sac. The bowel was returned without any difficulty, and a portion of healthy-looking omentum, about the size of two fingers, I also returned easily.

After the operation the patient's symptoms were entirely relieved. The sickness, which had been almost incessant, completely disappeared, and the pain ceased. She passed a good night afterwards. The next day she continued comfortable, except a complaint of some pain in the lower abdominal region, which we attributed at the time to the circumstance of her having begun to menstruate—a period at which she habitually suffered much. To this we did not attach much importance, especially as the temperature was only a little over 100° F. The next day, however, the pain was more about the right inguinal region, though there was still no indication of any general peritonitis, and the temperature rose. As I have already related in the report of the case, the bowels acted freely after an enema, and some relief was obtained by the remedies employed. On the 21st—i.e., four days after admission—vomiting returned, and there were indications of renewed obstruction. From this time the symptoms increased in severity, the sickness becoming almost incessant; the bowels, however, acted freely again on the 24th, in the evening of which day she died.

There was found after death far less general mischief than is usual in fatal cases of this kind; but a single patch of inflamed bowel, by which it became adherent to the abdominal wall, and so caused an obstruction almost as complete as that of the hernia itself. This is the peculiar feature of the case, and I cannot find a record of any quite similar one. It seems strange, with such a slender sort of hold, that the bowel should be able to resist, by its angularity merely, the onward force which peristaltic action would produce. And here, I imagine, we come to the explanation of the real difficulty. Although there was no marked indication of such being the case, we may, I think, fairly assume that the point of adherent bowel must have been that portion which, when strangulated, was subjected to the irritating pressure of the truss (which I have already alluded to), and although it bore no sign of injury when seen during the operation, the mischief may have been begun, and produced its fruit afterwards in the patch of lymph by which it glued itself to the abdominal wall. There is an interesting circumstance bearing on this subject which is recorded by Mr. John Wood. In speaking of his cases of radical cure of hernia, he tells us that the single instance in which death resulted from peritonitis was one where the starting-point of the inflammation was a small adhesion of small intestine, in which at the point of attachment there was evidence of some injury, which Mr. Wood attributed to a truss which had been previously worn. To return, however, to my own case, why should such a slight adhesion have caused obstruction? It can be explained, I believe, only on the supposition that there was, in addition, more or less muscular paralysis of the intestine; for, as we know, a comparatively slight obstruction in the nature of a fold of the bowel, or some other condition, which, under ordinary circumstances, might be overcome, will, when superadded to deficient muscular action, lead to complete stoppage. There is, again, the possibility that the occurrence of the menstrual flow the day after operation may have induced, as it almost certainly would, considerable congestion of the lower abdominal viscera, and so help to bring about the untoward result.

Now I come to ask whether it would have been possible to have done more for the patient in this case? Would it have been possible to reopen the wound, and release the imprisoned bowel? I do not think it would, even if we could have been sure of the very unusual condition the post-mortem examination revealed. And even if it had been set free, would not the process have probably led to more general inflammatory action? To this we can only reply in the affirmative. I carefully considered the justifiability of making any attempt to explore, but as there was no indication to guide us as to the nature of the renewed obstruction—it might have been due to so many different causes—we devoted ourselves to endeavouring to allay inflammatory action, and to sustain the patient, and this is all that I think in such a case could well be done.

There is one other matter to which I will refer, and that is the important lesson—which cannot be too often repeated even when we know it by heart—that the danger in strangulated hernia is in almost direct proportion to the delay

in reduction, and I would add the amount of manipulation or injury; and if we would diminish the present high rate of mortality after operation for hernia, we must endeavour to teach it to others, as well as to act upon it ourselves.

MEDICINE IN BULGARIA.

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ALBUMINURIA IN AN AGED PATIENT, TREATED BY GALLIC ACID.

MADAME S——, aged seventy-five, Bulgarian, sent for me on the 23rd March, 1878. She was suffering from dropsy of enormous extent, great difficulty of breathing, insomnia, frequent attacks of vertigo; bowels very irregular, mostly costive. Pulse 90; and most peculiarly dicrotous—namely, two beats then a pause, three beats then another pause, and so on regularly repeated. Tongue natural; thermometer under tongue, 96°. Urine scanty, very high-coloured; sp. gr. 1008, highly albuminous and containing blood-corpuscles. Heart-sounds natural, but rhythm corresponding with pulse. The legs were enormously swollen, and the tissues over the right great trochanter very red and painful. Effusion into the abdominal cavity excessive, and, by its presence, causing apnœa. The apex of the heart beat higher than natural, and the region of cardiac dulness was diminished from below upwards, but increased from side to side owing to the upward pressure of the abdominal fluid transmitted through the lung to the heart.

Ordered mercury pill five grains, compound colocynth pill three grains, extract of hyoscyamus two grains, divided into two pills; and after these have operated, gallic acid two drachms, extract of hyoscyamus twelve grains, with sugar of milk, divided into eight powders, one to be taken every three hours. Powder of squills twelve grains, powder of digitalis six grains, mercury pill twenty-four grains, divided into eight pills, one to be taken at bedtime. Diet farinaceous; a little beef-tea and milk, 10 oz. per diem. To avoid fluid as far as possible. Hot-water foot bath at night.

March 24th.—Bowels freely opened. Symptoms unchanged. Medicines as before.

26th.—Patient much improved. Breathing less difficult. Heart's action improved. Urine copious, clearer, and albumen less; blood-corpuscles undiscernible. Insomnia less. Continue treatment, but increase the gallic acid to twenty grains in each powder. The night pill and diet as before.

27th.—Patient improving very rapidly. Urine as yesterday, but more copious. Bowels confined. Œdema greatly diminished. Ordered compound rhubarb draught and omit gallic acid until the bowels are relieved. Tenderness of trochanter is increasing. Ordered for this a lotion consisting of sulphuric acid one drachm and a half, linseed oil two drachms, balsam of Peru one drachm.

28th.—Bowels freely moved; patient bright and cheerful; dropsical effusion everywhere rapidly diminishing; urine very copious and clear, contains not a trace of albumen, sp. gr. 1015; pulse natural; heart's apex beats in its natural position; breathing normal; sleeps well. Ordered to continue the powders every four hours, pill at bedtime as usual; the pediluvium as before; farinaceous diet.

29th.—Only slight œdema of legs remaining; patient improving. Remedies continued.

31st.—Improving; bowels confined. Ordered compound rhubarb draught.

April 4th.—After this date I omitted professional visit, as my patient was convalescent.

I omitted to mention that this patient had been under the treatment of a native practitioner for six weeks previous to my attendance, and during that time was treated by means of friction, with ointment and oil to the limbs. She stated that her attack commenced after getting a severe wetting.

INCONTINENCE OF URINE, THE RESULT OF INJURY TO THE BLADDER FROM LITHOTOMY, TREATED BY ERGOT.

Mr. G——, aged thirty-one, an Armenian, of fairly robust frame, but very sallow complexion, came under my notice on August 1st, 1878, suffering from incontinence of urine of eight years' standing. His person emitted a filthy stench, and his trousers were deeply stained by the urine constantly trickling from him. He wears a large soft cloth in the fork of his trousers to catch the urine as it comes from him. The patient was born in Armenia, and there, from the age of five years, he was known to have stone in the bladder. There being no surgeon in his village capable of operating upon him, he had to remain a wretched sufferer until he arrived at the age of twenty-three, when, having put together a little money, he started for Constantinople. Here he went under the care of a Turkish naval surgeon (Dr. Gustantine), who cut him, using the median operation, and removed a stone weighing forty-two drachms. The wound soon healed, and he had no difficulty about micturition, until three months after the operation, when, whilst making water, the stream suddenly stopped, and he was attacked with great pain. The same surgeon attended, and introduced a sound. On its withdrawal the urine passed freely. The surgeon said there was another small stone, and the day following he again operated, removing a second stone weighing twelve drachms. The wound from this operation also healed quickly, but from this period (now eight years) he never has been able to retain his urine when walking or working. Previous to the removal of the first stone he says his sufferings at times were almost unbearable.

Looking upon this man's case as one of relaxation (if I may so call it) of the muscular tissue of the neck of the bladder (the result of the lithotomy sound), especially the sphincter vesicæ, accompanied with unhealthy state of the mucous membrane, I resolved to remedy the latter first, and then try the effects of ergotine internally. Before relating further I may mention that I was led to adopt the ergotine treatment owing to the accounts I have read of its marvellous effects upon involuntary muscular fibre. To correct the unhealthy mucous lining of the bladder I treated him with benzoic acid and buchu internally; compound belladonna ointment applied by friction over the pubes and perineum; enjoined rest in the recumbent position; mucilaginous diet and scanty fluid; cold sea-water douche twice daily. After four days of this treatment, seeing that he complained of no bladder uneasiness, and only suffered from the incontinence, I ordered him the following: Gallic acid, twelve grains; extract of ergot (Bonjean's), half a drachm; extract of nux vomica, two grains, divided into twelve pills, one to be taken every three hours in the day. The douche to be continued, and the diet and rest as before.

On the fourth day of this treatment the patient observed that his urine only occasionally came away, and then only when making some straining or bending motion of his body. He was so pleased that he begged of me to make the pills stronger. I did so, adding a quarter grain to each pill. He continued taking these pills, one every three hours, until the seventh day of the ergot treatment. At this period he had full control of his bladder, so far as the constant trickling was concerned; but when the desire for voiding his urine came on, he was obliged at once to obey the call or pay the penalty of having his trousers wet through. On the eighth day of the ergot treatment I reduced the number of pills daily to one three times a day. This number he continued taking daily for a week longer, when he said he was perfectly well, and left me much gratified.

Whether I calculated rightly what the effect of the ergot in this case would be, I will leave it for my readers to judge.

In conclusion, I may remark that I have had valuable assistance from ergot in many diseases prevalent here: in dysentery especially; in hæmorrhage from the bowels; in typhoid, frequently. In uterine hæmorrhage (severe) I employed it in one case hypodermically, as lately recommended in THE LANCET, with complete success. In hæmoptysis I find it most beneficial, and am now employing it in a severe case of phthisical hæmoptysis with marked benefit.

MIDLAND MEDICAL SOCIETY.—The annual meeting was held in Queen's College on the 16th inst., when the following officers were elected:—Mr. Herbert M. Morgan, President; Mr. Harmar, Hon. Treasurer; Dr. Thomas Savage and Mr. John Garner, Hon. Secretaries. The names of Mr. Gamgee, Dr. Sawyer (late President), Mr. William Thomas (late hon. sec.), Mr. West, and Dr. Welch, were added to the Council. Professor Lister, F.R.S., has consented to deliver the inaugural address on Wednesday, the 30th inst.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

CASE OF TEMPORARY HEMIPLEGIA AFTER LOCALISED EPILEPTIFORM CONVULSION.

(Under the care of Dr. HUGHLINGS JACKSON.)

IN many places,[1] and most recently in the sixth volume of Dr. Crichton Browne's West Riding Asylum Reports, Dr. Hughlings Jackson has suggested that temporary local paralysis after a convulsion is owing to temporary exhaustion of more or fewer units of the corpus striatum, and perhaps of lower centres, by the excessive discharge of some part of the cortex in the paroxysm. He has pointed out that this explanation was given before him by Todd and by Alexander Robertson, of Glasgow. At any rate, in considering the relation of local paralysis to disease of the cerebral cortex, we should note whether the paralysis follows a convulsion or not. This is particularly important with regard to the interpretation of some of Ferrier's experiments. The relation of paralysis to cortical lesions is a very complex matter. Let us consider it briefly.

Ferrier finds that destructive and yet limited lesions of particular parts of the cortex in monkeys—not in cats and dogs—cause permanent loss of the movements which are developed when those parts are electrically excited. There is a kind of paralysis, however, in dogs after cortical lesions. Goltz found that most dogs after cortical lesions were unable to "give a paw," though they had learned to do so; they lost the most artificial and most voluntary movement from the destructive lesion. This loss will remind the reader of the loss of power to protrude the tongue in some cases of aphasia (see our Mirror, May 18th, 1878), when other movements of that organ appear unaffected. Dr. Hughlings Jackson (although for many years he has believed that every convolution in the cerebrum is a centre for the co-ordination of movements and impressions) has not, until recently, believed that limited destructive lesions of the cortex are followed by any paralysis of the face or limbs. It is a fact that recovery from hemiplegia occurs when there remains a permanent lesion of the corpus striatum; the recovery occurring, he has suggested, because the undamaged parts of the centre also represent the parts the part destroyed represented—there is compensation. It is not, supposed that compensation is in any organ ever perfect. He supposed, however, it to be so nearly perfect in centres higher than the corpus striatum—that is, in the convolutions—that there resulted from lesions of them no discoverable local paralysis. The clinical researches of Charcot, Lepine, and Laudouzy show that Ferrier's inference from his experiments on monkeys—that limited destructive lesions of the cortex produce limited paralysis (monoplegias) in man—is correct. There is not perfect compensation in these parts of the cortex. These physicians adduce cases of limited cortical softening in which there had been monoplegic paralysis. Now, as in such cases they traced "*descending*" *wasting of fibres from the cortical lesion*, and as the basal ganglia were sound, it seems impossible to doubt that the cortical lesions were the veritable causes of the paralysis. These facts supply exceedingly important evidence in favour of the interpretation which Ferrier gives of his experiments, both of the destructive and the stimulative, if we may use such terms. In Charcot's cases the paralysis did not always follow convulsion; that is to say, the paralysis could not have depended on exhaustion by a discharge of the convolutions; moreover the paralysis was not temporary.

Admitting the facts above stated, Dr. Hughlings Jackson still thinks that Todd and Robertson's hypothesis is the only way in which most cases of *temporary* hemiplegia and *temporary* monoplegia, *following* convulsion, can be explained. The following case, as there was no necropsy, has only clinical value. Further, as the spasm, according to the patient, affected the left side of the face and the right limbs, it may be averred that the discharge causing the convulsion was of the pons Varolii, and that the paralysis and speech defect after the seizure might be put down to some temporary state there. The case is, therefore, only mentioned as a good illustration of the very important clinical fact, that absolute and yet very temporary paralysis may follow a convulsive seizure.

The patient, aged forty-two, was syphilitic. She had double optic neuritis, and had had many previous seizures, all beginning by right-sided spasm. The seizure to be mentioned is the only one in which the spasm was said to have begun in the *left* cheek; very likely it really began right-sidedly, as the nurse averred. This is not inconsistent with there being spasm of the left side of the face when the fit was ceasing. Only the incident of temporary paralysis after convulsion is here narrated. A little later the patient left the hospital and was lost sight of.

June 5th, 1872.—Afternoon: Dr. Hughlings Jackson and Mr. Wallace Drew, then clinical assistant, saw a little twitching of the *left* side of the face when, at 4.40, they reached her bed; the fit was just ceasing. The nurse said that before the fit the patient called her, and said that she (patient) was going to have a fit, and that almost immediately one came on, which, the nurse said, affected the *right* side of the face. There was no doubt that the right arm and leg had been convulsed. When all spasm had ceased, the patient told Mr. Drew that she was conscious throughout the seizure. She was hemiplegic. No paralysis of the face was discovered. She could, in showing her upper teeth, draw up the upper lip symmetrically. She could not get the tongue further than the teeth. This needs comment.

It might seem that the tongue was paralysed; in a sense it was, no doubt. But it is a very common thing for an aphasic person to be unable to put out the tongue when told, although he may use it well (it may move well) in other ways. This peculiarity has been remarked on by Dr. Hughlings Jackson in a recent "Mirror." This patient was partially aphasic, and yet that her tongue was not paralysed in the ordinary sense of that word was proved by the fact that when seized with a cough she stuck out her tongue, the organ being then curled up at the sides gutter-like; moreover she swallowed well. Her arm was absolutely powerless, she could not stir a finger; she could lift the leg from the bed, but only imperfectly. When asked her name she replied "Ah chick" (a distant caricature of it). "What day of the week is this?" "Wed, wed, wheh, whoh, &c." "Where do you live?" Rejoinder unintelligible. In remark to the nurse she said, "Atl oo," which was evidently meant to be "That'll do." Asked to say "rub," she said "au"; for "rum," "au"; for "egg," "ek"; for "Jack," "ack" or "aq"; for "p," "e"; for "b," "e"; for "s," "eh"; for "head," "ag"; for "terrible," an unintelligible short sound; for "John," "oh." She had never learned to read or write, and thus testing in these directions was impossible. Before 9.30 the patient was able to speak perfectly, and had no paralysis of her limbs. Her arm was not at all paralysed before the attack. At 4.40 it was absolutely paralysed; at, and possibly before, 9.30 it was well again.

It may be said that this patient's way of talking was not evidence of aphasia; such talking, however, occurs from disease of the left side of the brain. The defect was much too compound to be analysed into defect of articulation from paralysis of this or that muscle of the articulatory organs.

Dr. Hughlings Jackson has recorded a case of a man who had defective talking somewhat like that seen in cases of cerebral lesion; in which case, however, the only notable encephalic lesion discovered was tubercle in the pons Varolii. A careful examination of the whole brain was made by Dr. Gowers.[2] Dr. Hughlings Jackson feels certain that no cerebral lesion was overlooked which present means of research enables us to discover. In this man's case the defective talking came on some time later than his right hemiplegia; both in it and in the woman's case Dr. Hughlings Jackson believes the lesion causing the aphasic symptoms was near to the left corpus striatum, although so experienced an observer as Dr. Gowers found no local lesion of the left cerebral hemisphere. Dr. Hughlings Jackson does not deny

[1] See Mirror, Dec. 13th, 1873.

[2] See Medical Times and Gazette, Jan. 3rd and 24th, 1874.

that a certain kind of ataxy of articulation does occur in some cases of lesion of the left side of the pons Varolii.

WEST LONDON HOSPITAL.

STONE IN THE BLADDER OF A MAN SUFFERING FROM RENAL, VESICAL, AND PROSTATIC DISEASE; LITHOTRITY; IMPROVEMENT IN THE PATIENT'S CONDITION, AND DEPARTURE FROM HOSPITAL; DEATH SIX MONTHS AFTERWARDS.

(Under the care of Mr. TEEVAN.)

EDWIN M——, sixty-three years old, of no occupation, was admitted into the hospital on June 25th, 1877. The patient, who was a large, handsome, well-made men, stated that about seventeen years ago he began to be troubled with frequency of micturition, for which he consulted a hospital surgeon, who considered that he was suffering from an irritable bladder. The stream of urine gradually became smaller, and he had greater difficulty in ejecting it. He consequently again sought the advice of the surgeon, who examined his bladder, and told him that he must use a catheter daily, or he would be troubled with gravel or stone. From time to time, at intervals of two or three months, he would be attacked with pains in the loins, and pass nothing but blood for days.

When admitted into the hospital the patient was anæmic and feeble, and stated that latterly he had lost flesh. He was troubled with a constant desire to urinate, notwithstanding the frequent use of the catheter, and after the withdrawal of the instrument he experienced much pain in the penis, perineum, and rectum. Locomotion in an omnibus greatly increased his sufferings, and caused him to pass blood. He could make but little water naturally, and what came did not flow out in a stream, but fell between his legs. The urine contained a large quantity of muco-pus streaked with blood; its specific gravity was only 1010, and there was much albumen in it. Mr. Teevan examined the patient's bladder with a very short beaked sound, and found a stone lying behind what seemed to be tumours connected with the neck of the bladder. The third lobe of the prostate was also enlarged, and the bladder very rugose. Rectal examination showed that the prostate was greatly enlarged, but the masses connected with the neck of the bladder could not be felt. The patient was put on a nourishing diet, and ordered large quantities of milk. Buchu and mineral acid were prescribed.

On July 3rd Mr. Teevan passed a flat-bladed lithotrite and measured the stone, which was 1½ in. by 1¼ in., and apparently phosphatic. He consequently crushed it there and then. No anæsthetic was given, and the patient suffered but little pain. As his urethra was very capacious, Mr. Teevan trusted to the patient's being able to withdraw the débris with his catheter, assisted by an occasional washing-out of the bladder. At 9 P.M. the same day the temperature was 98·4°, and he passed a little urine tinged with blood.

4th.—9.30 A.M.: Drew off about a pint of clear urine. No pain. Pulse 64; temperature 98°.

On the 6th, the patient had one of his old attacks of hæmaturia. It persisted for three days, in spite of large doses of gallic acid and an exclusively milk diet. The man was, necessarily, left much weakened; and it was not until the 18th that Mr. Teevan again crushed the stone. He repeated the operation on July 23rd and 30th and on August 10th and 21st. No constitutional disturbance followed any of the crushings, which were well borne by the patient. On August 24th he was so much better, and had got rid of so large an amount of débris, that he was allowed to return home, as he wished to do so.

On September 4th, 9th, 15th, 18th, and 21st, he visited the hospital as an out-patient to have his bladder washed out. On three occasions a small lithotrite was passed, and a few fragments of stone found and disposed of. During all this period the patient much improved in health, the urine became almost clear, and he was able to walk from four to ten miles with comfort.

On Dec. 19th, nearly four months after his departure from the hospital, he was again admitted. Latterly he had suffered greatly from spasm before passing water, and the urine was again loaded with muco-pus, but not tinged with blood. He was bent and feeble, and his voice low and shaky. Mr. Teevan sounded him, but could not detect the slightest particle of stone. The bladder seemed much diminished in size, from the growth of the tumours connected with the prostate. So severe was the spasm which attacked the patient every few hours that he would turn purple in the face and the penis become quite turgid. Mr. Teevan ordered him suppositories of opium and camphor, and told him to try to pass the catheter before the spasm came on. He was put on a diet consisting almost exclusively of drink. Every other day the bladder was washed out with a weak injection of nitric acid and quinine, and buchu was prescribed internally. These measures, however, afforded no relief, and the perineum was blistered. It greatly worried the patient, who had become very nervous, almost hysterical, and was followed by no abatement of his sufferings. Under these circumstances the operation of cystotomy presented itself as a means of relief. Mr. Teevan accordingly requested his colleague, Dr. Milner Fothergill, to examine the patient with special reference to the renal affection. After several careful interviews, coupled with an examination of the urine, he gave it as his opinion that the kidney disease was too grave and too far advanced to permit of an operation to be undertaken with any prospect of success. Consequently, as Mr. Teevan could discover no stone, he abandoned all idea of surgical interference. The patient gradually lost ground, and died on March 6th broken up by pain, loss of sleep, and want of appetite.

Necropsy, forty-eight hours after death.—The lungs were healthy, but there were a few old adhesions. The heart was pale and flabby, and the aorta studded with atheromatous patches; the aortic valves were diseased; the right kidney weighed nine ounces, and the left one eleven, and were both typical specimens of suppurative nephritis; the ureters were much indurated and dilated. The bladder was very rugose and thickened, and its mucous membrane discoloured. Projecting into it from the posterior border of the prostate were two pedunculated tumours, each of about the size of a walnut, which, when examined microscopically, were found to be simple prostatic outgrowths. Underneath the left tumour was discovered a small phosphatic stone the size of a split pea.

Mr. Teevan observed that in the present instance the stone in the bladder was a secondary local affection, and was the least of the patient's ailments. The prostatic growths were such that he could probably never completely empty the bladder, even with the aid of the catheter, and the great pain he latterly suffered was probably due to an inflamed bladder contracting on the outgrowths, which must themselves have been kept in a state of chronic irritation by the passage of instruments and their continuous contact with a muco-purulent fluid. Considering the amount of renal disease present, any cutting operation would, in all probability, have been followed by a rapidly fatal result, and although lithotrity failed to save life, it prolonged its duration for several months, enabling the patient to return to his home, and to frequently take long walks in comparative comfort.

WEST BROMWICH HOSPITAL.

CASE OF AORTIC ANEURISM TREATED BY GALVANO-PUNCTURE.

(Under the care of Mr. H. L. BROWNE.)

CHARLES J——, aged forty-four, labourer, married, a short, well-made and muscular man, formerly a soldier in the 61st foot, was admitted on Aug. 13th, 1877. He had served for ten years, chiefly in the East Indies. He left the army in 1865. Afterwards he was employed as a labourer in loading carts and lifting heavy weights of coal, and was frequently in cold and wet. His health had always been good; no history of syphilis. Father of eleven children, all healthy. During the previous March he perceived swelling in the right breast. There was no pain until the beginning of July, when he began to feel sharp pains, with shortness of breath. The swelling then rapidly increased, but he continued to work up to the time of admission, and his face was blue and congested. There was great difficulty in breathing, the voice was hoarse, and the superficial veins were very much enlarged, especially over the chest and the abdomen. The heart-sounds were feeble. Pulse 98, and

apparently smaller and retarded at the right radial as compared with the left. The tumour extended in an oblique direction from the right side of the sternum opposite the second costal cartilage down to the fifth rib. Dull on percussion, it fluctuated markedly, and pulsated visibly, with a heaving, distinct, and expansile movement. There was no aneurismal bruit, but systolic and diastolic sounds were heard over the tumour similar to heart-aortic sounds. The heart's apex was normal. The apex of tumour at the third right intercostal space was about the size of a hen's egg, and protruded in consequence of absorption of the right edge of sternum. The symptoms pointed to sacculated aneurism of the convex side of ascending aorta. The lung-sounds were normal (the dyspnœa and the hoarse voice were evidently caused by pressure on the recurrent laryngeal and the pulmonary branches of vagus).

On Sept. 12th two gold-plated needles were introduced between the third and fourth and fourth and fifth ribs, and connected alternately with the positive and the negative poles of a Stöhrer's battery, two, four, and six cells being used for twenty minutes each. There was no cauterising, nor was there hæmorrhage on withdrawal of needles. Ice-bags were applied for two days to ease pain. The tumours became flatter; fluctuation disappeared; the pulsation was less, and the walls of the sac were decidedly thicker.

On October 9th galvano-puncture was again applied. Two plated needles placed between third and fourth ribs were connected with the positive current from four cells, and a damp electrode applied over the sternum. No hæmorrhage or cauterising. There was but little pain. Still more marked improvement followed; the prominent apex of the tumour flattened down, and the general health was very good. The pulsation was evidently deeper and less, and thickening of sac-walls was greatly increased.

On Nov. 16th two large insulated needles with steel points introduced between the third and fourth ribs, about one inch and a half apart, were seen to diverge strongly at each pulsation of the aneurism. Connexion was made with the positive current from eight cells of Stöhrer's battery, and a sponge in a hollow copper handle connected with the negative and applied over the sternum; in forty minutes the needles were quite still. The current was kept up for thirty minutes longer. All pulsation in the sac ceased. No hæmorrhage followed, and the pain was slight.

On Nov. 20th the tumour felt solid. No pulsation, the swelling only moving with the movements of the artery.

Dec. 2nd.—No pulsation. General health so good that the man thought he was cured, and bolted from the hospital at night. Was not again heard of until Feb. 1878, when he was in the Queen's Hospital, Birmingham, as bad as when admitted to the West Bromwich Hospital.

This case shows the difference in galvano-puncture between the action of plated and insulated needles. In the former the current is probably most expended on the walls of the sac, and it is there deposition of clot takes place, and therefore this treatment might be available for dilatation of the aorta as well. In the latter the sac contents are coagulated, and it would seem that where sacculated aneurism can be clearly made out (much the most frequent form in the aorta) the current might with safety be kept up sufficiently long at one sitting to stop all pulsation. If the sponge is applied over the sternum, where there is only skin covering, there is very little pain. Over the pectoral and the intercostal muscles sharp twitching and pain are produced at once. It also shows how very long a clot produced by galvano-puncture takes to become organised, and how the most absolute rest (even using the arms to feed with is unsafe) is requisite for many weeks to produce a successful result.

MEDICAL STUDENTS.—At Queen's College, Galway, there are 51 new entries. Liverpool school returns 30 new, 90 in all; Bristol, 10; Queen's College, Birmingham, 28; Durham, 19 first-year men, with 51 other students, making a total attending 70.

HEALTH OF DUBLIN.—During the September quarter the births registered in Dublin amounted to 2369, being equal to 30·1 per 1000; and the deaths to 2008, or 25·5 per 1000. Zymotic diseases caused 592 deaths, being slightly in excess of the number in the preceding quarter. Deaths from diarrhœa, whooping-cough, small-pox, and diseases of the respiratory organs were above the average for the third quarter of the year.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

REPORT OF COMMITTEE ON MEMBRANOUS CROUP AND DIPHTHERIA.

THE ordinary meeting of this Society was held on the 22nd inst. Dr. Charles West, President, in the chair. There was a numerous attendance, the evening being occupied with the reception of the report of the Committee appointed to examine into the relation existing between "membranous croup" and diphtheria. It will be seen that it was decided to adjourn any debate on the report to a subsequent meeting.

Dr. ANDREWS (Hon. Medical Secretary), read the *Report of the Scientific Committee appointed to Examine into the Relation existing between the diseases commonly known respectively as Membranous Croup and Diphtheria*, of which the following is a summary of conclusions:—

1. Membranous inflammation confined to, or chiefly affecting, the larynx and trachea may arise from a variety of causes, as follows:—

(*a*) From the diphtheritic contagion.

(*b*) By means of foul water, or foul air, or other agents, such as are commonly concerned in the generation or transmission of zymotic disease (though whether as mere carriers of contagion cannot be determined).

(*c*) As an accompaniment of measles, scarlatina, or typhoid, being associated with these diseases, independently of any ascertainable exposure to the especial diphtheritic infection.

(*d*) It is stated, on apparently conclusive evidence, although the committee have not had an opportunity in any instance of examining the membrane in question, that membranous inflammation of the larynx and trachea may be produced by various accidental causes of irritation—the inhalation of hot water or steam, the contact of acids, the presence of a foreign body in the larynx, and a cut throat.

2. There is evidence in cases which have fallen under the observation of members of the committee, and are mentioned in the tables appended, that membranous affection of the larynx and trachea has shortly followed exposure to cold, but their knowledge of the individual cases is not sufficient to exclude the possible intervention, or co-existence, of other causes. The majority of cases of croupal symptoms definitely traceable to cold appear to be of the nature of laryngeal catarrh.

3. Membranous inflammation, chiefly of the larynx and trachea, to which the term "membranous croup" would commonly be applied, may be imparted by an influence, epidemic or of other sort, which in other persons has produced pharyngeal diphtheria.

4. And, conversely, a person suffering with the membranous affection, chiefly of the air-passages, such as would commonly be termed membranous croup, may communicate to another a membranous condition limited to the pharynx and tonsils, which will be commonly regarded as diphtheritic.

It is thus seen that the membranous affection of the larynx may arise in connexion with common inflammation, or with specific disorders of several kinds, the most common of which in this relation is that which produces similar change elsewhere, and is recognised as diphtheria.

In the larger number of cases of membranous affection of the larynx the cause is obscure (i.e., in any given case it is difficult to predicate the particular cause in that case.)

Among those in which it is apparent common irritation seldom presents itself as the source of the disease; accidental

injury is but very infrequently productive of it. But few cases of undoubted origin from exposure to cold are on record.

On the other hand, in a very large number of cases infective or zymotic influence is to be traced.

The membrane, even when chiefly laryngeal, is more often than not associated with some extent of a similar change in the pharynx or in the tonsils; and whether we have regard to the construction of the membrane, or to the constitutional state as evinced by the presence of albumen in the urine, it is not practicable to show an absolute line of demarcation (save what depends upon the position of the membrane) between the pharyngeal and laryngeal forms of the disease.

The facts before the committee only warrant them in the view that when it obviously occurs from a zymotic cause or distinct infection, and primarily affects the pharynx, constitutional depression is more marked, and albuminuria is more often and more largely present, though in both conditions some albumen in the urine is more frequently present than absent.

The most marked division indicated by the facts before the committee is that between membranous and non-membranous laryngitis.

The committee suggest that the term "croup" be henceforth used wholly as a clinical definition, implying laryngeal obstruction occurring with febrile symptoms in children. Their croup may be membranous or not membranous, due to diphtheria or not so.

The term "diphtheria" is the anatomical definition of a zymotic disease, which may or may not be attended with croup.

The committee propose that the term "membranous laryngitis" should be employed, for the avoidance of confusion, whenever the knowledge of the case is such as to allow of its application.

W. HOWSHIP DICKINSON, Chairman.
C. HILTON FAGGE.
SAMUEL GEE.
G. F. PAYNE.
H. G. HOWSE.
R. H. SEMPLE.
W. S. GREENFIELD, Secretary.

The PRESIDENT said that it was his pleasant duty to return the thanks of that meeting to the members of the committee for their laborious work. The report suggested many problems not yet entirely solved, and he invited discussion on the subject. Some points which had struck him were—what difference, if any, exists between those cases which are met with in epidemics and those which occur sporadically; then whether there were any differences between those forms of endemic "croup" which prevail in certain localities and those other forms prevailing sporadically or epidemically at other times and places. One very striking fact was that of the far greater prevalence of fatal "croup" in rural districts—e. g., Sussex—than in large towns, such as Liverpool, where so many unhealthy influences abound. Such points might well be discussed, and others concerning which the committee did not have sufficient opportunity of making observations—e. g., the comparative frequency of albuminuria in the membranous and non-membranous form of croup. There was also the question of the occurrence of paralysis after diphtheria, and its rarity after croup. — Dr. FELIX SÉMON thought the number of cases investigated was too small to base general conclusions upon, seeing that different epidemics of diphtheria have different characters; for instance, in Berlin, Vienna, and Paris the disease has much increased since 1850, and has assumed a more virulent character, especially in Vienna. As to identity between croup and diphtheria, he would remind the Society that, whereas in Germany some believed in this identity, many thought that there was no essential anatomical difference between the croupous and diphtheritic inflammation. — Dr. SEMPLE, as a member of the committee, assured Dr. Sémon that the investigation was most thorough. — Dr. HUMBY asked what proportion of cases occurred without laryngeal symptoms at all; and Dr. COUPLAND, commenting on the high mortality given in the report from membranous laryngitis even after tracheotomy, inquired whether the committee had found that the operation was often performed in cases of non-membranous laryngitis, which apparently never ended fatally.—Dr. HABERSHON said that their best thanks were due to the committee for their arduous investigation. It would scarcely be due to them that such an elaborate report should be dismissed without full discussion, and he would propose that the discussion be adjourned to some future day, so that they might have time to think over the various questions that had been raised. He confessed to feeling difficulties in the way of discriminating laryngeal diphtheria from non-contagious membranous laryngitis, and he recalled a case of a child suffering from simple "croup," where the urine became albuminous, and from whom the attendant nurse contracted true pharyngeal diphtheria. In order to the clear and ample discussion of such difficulties, he proposed that the discussion on the subject be adjourned. —Mr. HOLMES seconded the motion, owing to the importance of the subject, and the difficulty of discussing so elaborate and intricate a report without first fully mastering its details. He would suggest that the report should "lie on the table" for members to refer to until it came on for discussion. It seemed that the great point of the report was to set up a kind of distinction between membranous and non-membranous laryngitis, and, if so, it was most interesting to surgeons to see on what evidence so important a distinction was based, as it would, if established, much modify their line of treatment. Another point for discussion was how far membranous laryngitis was due to insanitary conditions, and how far to simple accidental causes.—Dr. ORD suggested that either an abstract or the whole report should be printed and circulated among the fellows before its discussion was entered on.—Dr. DICKINSON concurred that it would be most convenient if it could be done, for the mass of facts before the committee, upon which their conclusions were based, was very large. — Dr. GREENFIELD supported the proposition, for he knew it was impossible to follow the intricate arguments in the report unless this was before the fellows in its entirety. The committee felt that they had but entered on a wide subject, and did not wish that their conclusions should be considered as final. Hence it was most desirable that they should be fully discussed.

Dr. HABERSHON'S motion for the adjournment of the debate, with a recommendation to the Council to consider the best mode of putting the fellows in possession of the report, was then put and unanimously carried. The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Venous Pulsation.

THE first ordinary meeting of the 106th session of this Society was held on the 21st inst., Mr. Erasmus Wilson, F.R.S., President, in the chair. There was a large attendance.

The PRESIDENT opened the proceedings with a short address. He referred to the age and standing of the Society, and alluded to the admirable painting by Copley that adorns the walls of the meeting-room, full of portraits of the early founders, as Dr. Sims, the chairman, Dr. Lettsom, and nineteen others, including Edward Jenner, the discoverer of vaccination. Amongst the past presidents was Willan, who "first in this country gave a scientific character to the comprehension and classification of cutaneous diseases." Further on Mr. Wilson remarked that whereas in 1785 the majority of members were physicians, during the past session by far the larger amount of contributions had come from surgeons, showing the advances made by modern surgery, and the high position it held. He then reviewed briefly the proceedings of the past year, dwelling especially upon the "important question of the use and abuse of alcohol," which formed the theme chosen by the orator of the year, Dr. Alfred Carpenter.

Dr. LAUDER BRUNTON then read a paper upon Venous Pulsation. He pointed out that in considering pulsation in the jugular veins it is necessary to exclude the apparent pulsation communicated to them by the carotids. In the

absence of cardiac lesion some writers have attributed jugular pulsation to contraction of the right auricle, and others to the aorta pressing blood out of the intrathoracic veins into the jugulars during the distension caused by the cardiac systole. Dr. Brunton's observations have shown him that venous pulsation is sometimes due to distension of the aorta acting in a somewhat different way from that described by Friedreich. In cases of this kind the pulsation is very marked in the left jugular, and appears to be due to alternate compression and relaxation of the innominate vein by the aorta during its dilatation and contraction at each beat of the heart. In every instance in which this unilateral jugular pulsation has occurred the patient has been a female, and more or less anæmic. Notes of three illustrative cases were read. In Case 1 the pressure exerted by the aorta on the left innominate vein was insufficient to produce the pulsation when the circulation was quiet, but it did so when it was excited by emotion. In Case 2 it was insufficient to produce it when the thorax was dilated and the sternum raised by inspiration, but did so when the thorax had collapsed and the sternum had fallen during expiration. In all three of them the peripheral vessels were dilated, so that the vein filled very rapidly during compression, and but for this no appearance of pulsation would have been produced. Sir Joseph Fayrer and Dr. Brunton found that occasionally the pulmonary veins and the vena cava in rabbits might be seen to pulsate rhythmically for a considerable time after the auricles and ventricles had become perfectly still; this, which is not a simulated, but a real pulsation, has been omitted from modern text-books, although it is to be found in the older writers. These rhythmical contractions of the pulmonary veins and of the vena cava occur in animals killed in various ways. They do not occur frequently, and the conditions under which they take place are at present unknown; nor can it be stated whether they occur in man, but from observations on decapitated criminals it seems not improbable that such contractions may occasionally occur in the human subject. In one case it was noticed that the contraction of the pulmonary veins was not synchronous with that of the auricles. Supposing that in a case of mitral regurgitation a similar rhythmical contraction should occur in the pulmonary veins, a most powerful obstacle would be opposed to the backward flow of the blood. The property of contractility possessed by the veins is little regarded, and yet it is one of great importance in reference to the maintenance of the circulation in health and in disease. It is obvious that if venous radicles contract they may oppose a resistance to the flow of blood in the capillaries, and by thus increasing the pressure within them may cause more fluid to exude from them into the tissues; while, on the other hand, a rhythmical contraction may forward the onward progress of the blood, and may prevent some of the injurious effects which are usually noticed in tricuspid regurgitation. The action of drugs upon the veins has hitherto received very little attention, and therefore it is not possible at present to bring together pharmacological experiment and clinical observation so as to give any efficient aid in treatment. But it is probable that before very long some definite knowledge of the action of drugs on the veins may be obtained, which will assist in the treatment of those diseases in which venous engorgement plays a prominent part. Dr. Brunton also exhibited an arrangement for testing the competency of the valves of the heart, suggested to him by some experiments of Dr. Bayer, of Leipsic. It consisted in a Higginson's syringe connected with a nozzle which could be inserted into the ventricular cavity.—Dr. DE HAVILLAND HALL inquired how the rhythmical action of the vena cava relieved mitral regurgitation, as it seemed to him that by this means pulmonary congestion was increased.—Mr. GANT asked whether there were a greater liability to the entrance of air into the veins of anæmic subjects than occurs in ordinary cases.—Dr. BROADBENT thought venous pulsation in itself not a sign to be relied upon. He had been so accustomed to depend upon the condition of the veins of the right side that he had not paid sufficient attention to those of the left side. Venous pulsation was not a sign of much value in the diagnosis of tricuspid regurgitation, unless it occurred during inspiration as well as expiration. Dr. Sibson used to employ an apparatus for testing the competency of the valves similar to that shown by Dr. Brunton. The changes produced by rigor mortis destroyed the efficacy of this test of regurgitation; but for demonstrating the action of the valves, the plan of removing the auricles and filling the cavity of the ventricles from below was excellent.—Dr. ROUTH inquired as to the cause of pulsation in the veins of the neck, which occurred during the administration of chloroform.—Dr. SANSOM agreed that the causes of venous pulsation were multiple, and he alluded to pulsation of retinal veins. He thought it likely that after a time the muscular coat of pulsating veins becomes hypertrophied.—Dr. BRUNTON, in reply to Dr. Hall, said that just as the pulsation of the vena cava prevented over-distension of the right auricle, so pulsation of the pulmonary veins would prevent engorgement of the left auricle.

Reviews and Notices of Books.

A Clinical History of the Medical and Surgical Diseases of Women. By ROBERT BARNES, M.D. Second Edition. London: J. and A. Churchill. 1878.

IT will surprise no one acquainted with its merits that a second edition of Dr. Barnes' masterly work has been called for. The great clinical experience of the author in midwifery and gynæcology enables him to speak upon those subjects with the authority conferred only by ample knowledge.

The first edition of this work was published in 1873; and in reviewing a second it is, at the outset, agreeable to find that although five years have gone by, during which much important work has been done, the author has so thoroughly and conscientiously performed the task of revision that the size of the volume has been increased by no more than two pages. Space has been gained by largely condensing the indexes; the text exceeding that of the first edition by sixteen pages. A new chapter has been added on the "Relations of Bladder and Bowel Disorders" to the proper subject-matter of the book. The present edition contains twelve more illustrations than the former, and the author, warned by having had his illustrations copied without acknowledgment, has taken the precaution of appending his initials to those which are original. He says in the preface: "I think it not unimportant to state that I have given under any borrowed illustration the source whence it was taken"—honest conduct, which we commend to the attention of those who have sinned against him.

Comparing this treatise on women's diseases with other like works, we are impressed by the broadness of its view. It is freer from that bane of specialism, narrowness, than any similar work with which we are acquainted.

The obstetrical and gynæcological departments of medicine have long been exposed to disparagement, if not obloquy. This has arisen chiefly from the fact that few of those practising obstetrics and gynæcology have first acquired a competent knowledge of general medicine, either through that most instructive of all schools, general practice, or by holding hospital appointments which furnish their occupants with a wide field for the cultivation of every variety of practice. Those who have enjoyed such advantages will probably make the safest specialists. Just as some great surgeons are said to have dissected the body yearly, so specialists should lose no opportunity of profiting by knowledge outside their own particular domain. The valuable corrective influence derived from broad training pervades Dr. Barnes' writings to a commendable degree.

There can be no doubt that, rightly worked by men whose early training has been broad enough, the obstetrical and gynæcological departments are capable of throwing light upon many obscurities in general medicine and surgery. They may give back as much as, if not more than, they receive: witness the effect of that triumph of specialism, ovariotomy, upon abdominal surgery generally. The clue to many obscure pathological problems, and, perhaps, some physiological ones, will, we surmise, be found in the accurate study of the physiology of menstruation, pregnancy, and parturition.

By their very constitution, and through the exercise of their high function of maternity, women are exposed to much suffering, the intensity of which probably few besides the sufferers realise. It would be hard, indeed, if the progress of scientific medicine brought no ease to them who form so large a portion of the community. Happily for them, during the past century much progress has been made in this direction. The prudish allegation that the treatment of women by men is indelicate and therefore objectionable is refuted daily.

Dr. Barnes' writings contribute to the advancement of our knowledge of women's ailments, are full of instructive information, and form a trustworthy guide to practice. His style is forcible and crisp. Some may fancy they detect in it impatience of the opinions of others. Dr. Barnes speaks with the authority of one who knows his subject well. His judgment is always independent.

If there be a fault in the book, it is that which characterises all kindred works—namely, a lack of pathological information. It is no reflection upon the distinguished author—who is probably the ablest obstetrical pathologist we have—to state this, since it is impossible, as things at present obtain, for obstetricians to acquire much practical acquaintance with pathological anatomy, however adept they may be at "clinical" pathology; while those upon whom the duty of making post-mortem examinations usually devolves, as a rule, feel called upon to devote attention to other than gynæcological matters.

Before the department of diseases of women can be raised to a level with the higher and more advanced branches of medicine two things seem to be essential: first, a more accurate appreciation of the true physiology of the female generative organs, particularly of the function of menstruation, around which so much centres; and, secondly, a thorough investigation by earnest and competent observers into the pathology, remote as well as immediate, of the diseases of that system. Inquiry into the comparative anatomy, physiology, and pathology of the female reproductive system will unquestionably throw a flood of light upon many at present obscure problems. This rich and promising field is almost unexplored. Unhappily it is one upon which Englishmen are now practically forbidden to enter; the countrymen of Harvey and Hunter must fain be content to see their laurels won by foreigners. But as long as English midwifery and gynæcology are represented by such men as Dr. Barnes they will maintain the high position they have deservedly won.

The Journal of Anatomy and Physiology. Conducted by Professors HUMPHRY, TURNER, and MCKENDRICK. Vol. XII., Part 4. July, 1878.

THE papers contained in this Part are—(1) On the Growth and Maintenance of the Articular Ends of Adult Bones, by Dr. Alex. Ogston, in which he shows that the articular cartilages are not mere cushions to diminish shock and render motion smooth, but a growing tissue, possessing important functions; that, in fact, it may be regarded, so far as the formation of new bone goes, as possessing the same rank as periosteum, though the bone so formed presents characters that distinguish it from periosteal bone. One of these characters is that the bone underlying cartilage which has been converted into bone invariably presents a characteristic striation at right angles to the surface. Periosteal bone, on the contrary, usually shows a striation parallel to the surface of the bone. Dr. Ogston illustrates this by a description of different bones, and by no less than eight plates. (2) Professor Cleland gives an account of the Brain in Cyclopians. In the course of his remarks he quotes Förster's statement with approval, to the effect that the defect of the cyclopian brain is an arrest of the first cerebral vesicle. The corpora quadrigemina and parts behind them are always nearly normal, and the optic thalami are always blended into one, whilst the hemispheres constitute an undivided mesial structure. Professor Cleland thinks these conditions are not improbably due to interruption to forward growth resulting from constriction of a bloodvessel, or to some pathological change commencing in its interior. (3) Professor Cleland also gives an account of certain Cutaneous Ligaments of the Phalanges. (4) Dr. Ainslie Hollis supplies the details of an attempt to obtain a mechanical equivalent to the power of growth in aerial leaves. The attempt consisted in painting part of a leaf with a solution of isinglass, and comparing its growth with that of the opposite unpainted side. The difference, as shown in the tables and in a plate appended to the paper, is remarkable. (5) Dr. Creighton describes the formation of the placenta in the guinea-pig in a long and important paper. (6) Professor Ray Lankester discusses, *à propos* of some observations made by Professor Rolleston in his "Forms of Animal Life," the vascular system of branchiobdella. (7) Professor Turner gives notes on some rare Prints of Stranded Whales; (8) on the Fœtal Membranes of the Reindeer; and (9) on the Oviducts of the Greenland Shark. (10) David Newman, of Glasgow, records some physical experiments relating to the Functions of the Kidney, which present many points of interest both to the physicist and to the physician. (11) Mr. John Barlow furnishes a note on the mode of demonstrating Pflüger's Law of Contraction. And, lastly, Mr. W. J. Dodds gives a good historical and critical analysis of the subject which has attracted so much attention of late years—the Localisation of the Functions of the Brain.

The Popular Science Review. Edited by W. S. DALLAS. No. 8, New Series. Oct. 1878. London: Hardwicke and Bogue.

THE first article in this number is a carefully drawn up and at the same time popular account of the Ophiurans, or British Stars, by Dr. Duncan. Mr. C. E. Rance furnishes a description of the air in mines and the conditions which lead to colliery explosions. It would appear that whilst the legislative enactments tending to prevent explosions are almost perfect in the powers they confer on the inspectors and the care they demand from the owners of coal mines, the provisions cannot be carried out, the staff of inspectors being far too small. The senior officer travelled no less than fifteen or sixteen thousand miles last year, and was occupied 318 days in the execution of his duties, and is yet unable to pay his routine visit to any colliery under an interval of eighteen years. Surgeon-Major Wallich discusses the position of the Radiolaria, and proposes a new classification for them. Mr. Betham Edwards gives a note and coloured plate illustrating the Eucalyptus globulus; and Mr. Harling has a paper on the extinct British Wolf.

The Treatment of the Genito-Urinary Organs. By JOHN J. CALDWELL, M.D. Baltimore.—The author believes that several cases of disorder of the sexual organs which have been under his care, such as spermatorrhœa, diminished or lost sexual power, gleet, and leucorrhœa, have been much benefited by the administration of a new remedy—damiana,—and he urges the profession to employ it. He describes it as an alterative and tonic.

THE deaths in London last week numbered 1369, representing a rate of mortality equal to 20 per 1000 per annum. To the seven principal zymotic diseases 171 deaths were referred, these being subdivided as follows:—Small-pox 5, measles 10, scarlet fever 45, diphtheria 12, whooping-cough 33, different forms of fever 30, diarrhœa 36. Diseases of the respiratory organs accounted for 326 deaths, against 286 in the week ending October 12th.

THE LANCET.

LONDON: SATURDAY, OCTOBER 26, 1878.

THE proceedings at the meeting of the General Medical Council last week form a very instructive illustration of the fact that, if more care be not taken, the whole character and organisation of the medical profession will soon be altered, and altered for the worse. The Council did not attempt to consider the details of the claims of those seeking to be registered on the ground that they were *bonâ fide* engaged in the practice of dentistry at the date of the passing of the Act—a number amounting to no less than 840. The duty was done *en bloc*. The Council came together for the purpose of giving its sanction to the provisional registration of dentists, which began very shortly after the passing of the Act, and generally of laying down the principles which should guide it in administering this questionable piece of legislation. It sat for two days, at a cost of probably £600; yet it will puzzle our readers to gather from the report of the meeting any particulars of the information upon which this new Register of semi-medical practitioners has been constructed. It is no answer to say that the Council was left without discretion in the matter. If this were so, so much the more blame to the Council. Could there be anything more discreditable to the Council than to allow an Act to pass without protest—nay, even to sanction the passing of an Act—which gave the discretion of registering to the Registrar of the Council, in this case not a member of the medical profession? But though we think that the Council was most culpable in hastily supporting this crude Act, which fully-educated and qualified dentists justly complain gives misleading titles and qualifications to uneducated persons, yet we maintain that the Act, even as it is, imposes on the Council the duty of criticising the principles on which names had been entered on the Register, and gives it the power of erasing therefrom names which would not bear such criticism. Clause 13 says the General Council shall cause to be erased from the Dentists' Register any entry which has been incorrectly or fraudulently made. Hundreds of names have been put on the Register by the discretion of the Registrar, and the proceedings of the Council do not include any inquiry into the evidence required in support of the claim to have been in practice as a dentist. Surely the profession, which the Council says it represents, is entitled to some information on this point. It is conspicuous by its absence. The Council will soon have blindly added to its *protégés* wellnigh a thousand persons who do not know dentine from brilliantine, and whose sole title to registration was the removal of teeth which a true practice of dentistry would have saved. Surely it was competent to the Council to have made some inquiries on this subject, to have given some definition to the expression "practice of dentistry," and, if it saw fit, to have caused the erasure of names unfit for registration. If the Council had not this competency, so much the worse for the credit of the Act and for the good of the public. But even then the Council might have lent value to its proceedings by giving light to the public and to the profession. Instead of this the Council's precious time was occupied by unnecessarily long discussions as to a separate column for the insertion of higher qualifications on the Register for Dentists, and the *exposé* of a somewhat doubtful proceeding of the Irish College of Surgeons in giving qualifications to applicants whose only real title to registration under the Act was previous practice.

When the wholesale way in which the registration of all who chose to call themselves dentists at home has been conducted by the Council is considered, it is serious to think of the opening of the floodgates by which foreign dentists are to be admitted. It is not easy to ascertain the value of the diplomas which confer a general right to practise medicine and surgery in foreign countries; but it must be much more difficult to ascertain the value of mere dental diplomas in foreign countries. The Act is framed very favourably to foreign qualifications and those who possess them. The constant desire to protect these is much more apparent than the desire to protect the teeth and jaws of the much-enduring British public from unskilful treatment. We have never been illiberal towards foreign practitioners. But we tremble to think of the influx of foreign dentists which may be expected. If the Council could gather together from all parts for the purpose of sanctioning a Register of Dentists, and never ask its Registrar how he had defined "the practice of dentistry," what licence may we not expect from the Executive Committee, to which has been committed—in addition to all its existing duties—the decision of what colonial and foreign certificates shall be recognised for the purposes of registration, what foreign and colonial applicants shall be admitted to the Register, and *to carry out generally the provisions of the Dentists Act?* This is the working of the present Medical Council, and of all the multifarious duties which it seems greedily to undertake without reference to the manner in which they are done. It would be highly instructive to know how far the proper work of the officials of the Medical Council has been stopped or interfered with by this new Act. Perhaps the Register of 1879 will throw some light on this subject. Opinion is uniform as to the industry and courtesy with which the officials do their work. But they cannot do impossibilities, and if some change is not made in the way in which the Council does its work, or rather in the way in which it does not do it, but leaves it to be done by the Executive Committee, which in its turn leaves it to be done by the Registrar and the President, the Medical Register will continue to be an unreliable document, and the medical profession will suffer in its highest interests.

However unsatisfactory and imperfect the action of the Council in reference to the Dentists Act, its action with reference to its engagement to report to the Government on its own constitution was still more unfortunate. It not only refused to adopt Sir DOMINIC CORRIGAN'S motion to proceed at once to a consideration of this subject, but it went still further to justify those who charge the Council with having no serious intention of doing what it undertook in July to do. Dr. HAUGHTON moved, and Dr. AQUILLA SMITH seconded, "That in the opinion of the Council, it is desirable to hold the next meeting before February 1st, 1879." Clearly if the Council is to help the

Government to legislate on the subject, it ought to lose no time in formulating and sending to the Government its report. But this very moderate and obvious resolution was negatived by 11 to 8. The minority consisted mainly of Irish members, but it also included Sir JAMES PAGET, Dr. HUMPHRY, and Mr. TEALE. The President, Mr. SIMON, and Dr. FERGUS did not vote. The majority here have placed the Council in a very unfortunate light. It was a literal undertaking in July to consider the question of the constitution of the Council at its first meeting thereafter. It has not only failed to do this, but it has refused to pledge itself to meet to report in time to give any chance for legislation next year on its report. This is very like breaking faith with the Government and the profession. Even supposing that the whole subject is to be referred to a Select Committee—a decision apparently not known to the President of the Council—this does not liberate the Council from its own engagement which it has broken.

IT cannot be disguised that the relations of district and workhouse medical officers with boards of guardians are unpleasantly strained, and there is reason to fear that the tension is of a nature to impair the efficiency of "medical relief" in its main economic and humane purpose—the cure, or when that is impossible, the succour of the sick poor. We have reason to know that it is not the wish of the large body of medical men engaged in what used to be called "pauper practice" that this state of matters should continue. Any understanding, or the mutual clearing away of misapprehensions which now confuse the view and embarrass the discharge of duty on both sides of this eminently practical question, would be hailed by the medical profession with sincere satisfaction, and no regret though it involved some measure of self-sacrifice. To be useful in the difficulty which exists it is necessary to be frank with both parties. First, as is natural, we take leave to point out what we believe to be the fault on the side of boards of guardians. It will then be reasonable to deal candidly with the shortcomings of medical officers. In neither case have we the slightest intention of giving offence, and it must be understood that our remarks apply to the majority of cases and corporations, and not to any particular instance or board.

Speaking generally, guardians of the poor fail to recognise the very important distinction which exists between medical relief and ordinary relief. The same rules cannot govern the administration of the two kinds of aid. It may be granted, although it is not strictly true, that every penny spent in ordinary assistance is so much money lost to the pockets of the ratepayers. The wise economist will always remember that it is cheaper to expend funds in the help and rescue of those just sinking into the stratum of pauperism, and pluck them back to the level of bread-winners, than to allow them to sink utterly, or even drive them deeper in the mire, by withholding relief until it is too late to prove really helpful. The case of the sick is, however, much more conspicuously one for prompt and full assistance. If ever the history of pauperism in this country comes to be traced with a fearless and keen insight into the causes by which it has been created and maintained, it will be found that the great majority of recruits to the army which overruns and devastates the country have been persons in the first instance disabled by sickness. Crime may do much to augment the multitude of paupers; drink may do more; but sickness has done, and is still doing, the greatest amount of mischief in this direction,—though of this fact, unfortunately, the legal guardians of the poor are apparently oblivious. It is only fair to assume that if the fact that sickness is the most active cause of pauperism throughout the land were fully realised, the measures adopted for the cure of disease in all its forms would be increasingly effective. It needs no laborious argument to prove that it must be "cheap" to remedy sickness with the greatest despatch, and permanently, if that is the principal cause of pauperism and of dependence on the rates for sustenance. Boards of guardians have never given this consideration full weight, and they pursue a policy which consists in expending a pound in granting doles of relief, with the certain prospect of a fresh application for assistance in the near future, whereas fifteen shillings, or even less, given promptly at the outset would probably have sufficed to avert the misfortune of disability to the pauper and of a new burden to the rates. Viewing this matter at closer quarters, the fault seems to be this: boards of guardians or their officers are not sparing of their order for the attendance of the "doctor," and whatever help he can give he is welcome to bestow; but when the medical officer reports in due form that food, or something that counts as food, must be supplied as well as medicine, the relieving officer refuses or neglects to carry out the recommendation, and the board commonly endorses the delay, if it does not, as too often happens, confirm the refusal. This is the crux of the difficulty, and it is one of serious magnitude and complexity—the real cause of most of the disagreements which occur between medical officers and their boards, and the source of much public injury. The point to be pressed on the consideration of boards of guardians is the simple fact that it is useless to send cases to the medical officer unless they are prepared to carry into effect his recommendations. If the method of treatment pursued by a medical officer is not to their taste, it would be better to say so frankly than to worry the life out of an earnest and conscientious man, and place him in a false and painful position. Looking to the prevalence of the practice of vexatious objection to, and the withholding of, necessaries recommended by medical officers, we can only regret the non-existence of a law throwing personal responsibility on guardians who thus blindly and wantonly traverse medical prescriptions.

The shortcomings of medical officers are, we cannot help thinking, for the most part rather defects of courage and clearsightedness, than errors of judgment, or mistaken views of duty. A too common mistake into which medical men are apt to fall is the fruit of kindly sympathy. They are forgetful of the stern fact that, however generously their duty as practitioners may be discharged, with an eye to the comfort of their patients, it is only the *minimum* of relief the law allows to the sick poor. It is not within the province of the medical officer to determine whether any or what relief, in any particular case, should come out of the pockets of the ratepayers. These are questions for the guardians and their relieving officer; and when a medical officer finds that his representations are not acted upon, we think his remonstrance should be addressed to the board,

and not take the form of a repetition of the original order, or be communicated through the pauper or his friends. It may, and doubtless often does, happen that the medical officer is hoodwinked by paupers who prey on his professional credulity. A medical man has instincts and sympathies wholly opposed to those of the detective. Moreover, it is not his business to inquire into the pecuniary position and resources of his patient. If he considers certain necessaries or medical comforts to be indispensable, and the patient or his friends plead inability to procure these things, it is his duty to "recommend" them, and there his province ends. It is the duty of the relieving officer to supply the things ordered until the next board-day; afterwards the responsibility rests on the guardians. It would save a world of embarrassment if the distinct lines of obligation could be thus clearly laid down and acted upon by mutual consent. Relieving officers who withhold the legal forms signed by medical officers from their boards are acting in violation of rule. If a medical officer finds that his recommendations are not acted upon, it is his duty to address the board of guardians directly, and clearly within his legal competence to decline further attendance on the case. A little prompt action in this sense would lead to matters being placed on a better footing. The practice of giving orders for the supply of necessaries extending beyond the date of the next board meeting or the next medical visit, is mistaken, and creates difficulty. The "medical comforts" or "necessaries" prescribed by a medical man are assumed to be part of his treatment. He has nothing whatever to do with ordinary relief, and his prescriptions are supposed to be in force only until the next visit, or until renewed. It is not reasonable to expect a relieving officer or board of guardians to sanction such "recommendations" as extend over a period of one or two weeks. We throw out these suggestions pointedly, and if accepted and acted upon in the spirit that prompts them, we believe they will be found to form the basis of a better understanding between boards of guardians and their medical officers, to produce less strained relations, greater efficiency of relief to the sick poor and—satisfaction to the ratepayers.

THE world is waiting with very natural impatience for Mr. EDISON'S invention, which we are assured is to revolutionise lighting, warming, and cooking at a touch. The form in which his preliminary notice has been presented—the somewhat theatrical *avant courrier* which he has despatched—is not calculated to inspire blind confidence; but, on the other hand, his brilliant successes in acoustics, and his known skill and energy, forbid total unbelief, and compel us for the present to suspend our judgment.

The problem to be solved may be simply stated as follows. It is admitted that the light of the electric arc is whiter than any other, that it avoids pernicious products of combustion, and that, light for light, it is cheaper than coal-gas. Every property of solar is possessed by electric light, and the latter may even be made to compete in intensity with the former. Its power of penetration is enormous, and for certain purposes, such as the illumination of lighthouses, men of war, and public places and buildings, its suitability is denied by none. But, on the other hand, the disadvantages of the light, as now applied, are equally evident. It is at once dazzling and unsteady; it blinds one moment, and is gone the next. It requires a complex and expensive machine at every light—a machine liable to derangement and useless if deranged; and, if the lights are arranged in a circuit, the interruption of one involves the interruption of all.

These defects are due, firstly, to the fact that the light is only obtained in full brilliancy between carbon points, which must be kept at a fixed distance apart, although the points themselves are constantly varying in length; and, secondly, to the difficulty—or rather, at present, the impossibility—of obtaining diffused light from so small and so intensely brilliant a centre. Various contrivances have been adopted to overcome the first of these objections, but none hitherto has been perfect, because it is only when the current begins to slacken, and the light thereby to fall off, that the compensating machinery can act. For a similar reason, all attempts to subdivide the light, so that a single current should yield light, as gas does, at many distant points, have hitherto met with very imperfect success. It is hard enough to keep the light constant at one point, but to keep it constant simultaneously at many points, when a failure at one would induce total darkness at all, is at present impossible. When it is added that the electrical resistance at every light is very great, and that the "lighting of the gas" in any one house would suddenly introduce a great additional resistance into the circuit, the difficulties of the problem will be appreciated.

These, then, are some of the difficulties which Mr. EDISON professes to have overcome. It is useless to speculate when the facts will so soon be revealed. It is of course possible that the ingenious American may, to use the words of a scientific contemporary, have "turned the flank of the difficulty," by avoiding the use of carbon altogether, although even then it is hard to understand how uniform light, at a constantly varying number of centres, can be obtained. We by no means deny the possibility, but simply leave it to time and Mr. EDISON to prove it.

One consideration of especial interest for our readers remains—namely, the effect, good or evil, of intense light on the organs of vision. A very interesting discussion of this question will be found in M. PROUST'S "Traité d'Hygiène Publique et Privée," recently reviewed in these columns. Without endorsing all the author's views, we find in many of his arguments serious matter for thought, and even fear that the future may confirm, in regard to its effects on eyesight, his condemnation of "*cet éclairage profondément dangereux.*"

IT is scarcely matter for surprise that the wire-pullers of the Anti-vaccination League should seek to misinterpret our deliberately expressed opinion that the remarkable and disastrous fatality of small-pox in London during the past seven years, implying as it does the comparative failure of the administration of our compulsory vaccination system, urgently calls for careful and searching investigation. It is perfectly consistent with the unscrupulous disregard of facts and figures which characterises the tactics of anti-vaccinationists, that they should attempt to claim the authority of THE LANCET for the assertion that "successfully" vaccinated children are liable to death from small-pox. It is hardly necessary to urge that it was the very fulness of our confidence in the efficacy of successful primary vaccination as a

protection from small-pox, at least to children, which led us to insist upon the necessity for ascertaining the precise defects of vaccination administration in the metropolis, that rendered it possible for about 8000 children under five years of age to have been thus attacked with small-pox since the middle of 1876, resulting in 1283 deaths. The necessity for such investigation is strengthened by "well-authenticated cases of children *certified* as successfully vaccinated in infancy, and yet dying of small-pox in early childhood, *without any marks of successful vaccination.*" Such cases, to ignorant and prejudiced anti-vaccinationists, are loudly proclaimed as evidence that successfully vaccinated children die of small-pox; while, to those who have a scientific knowledge of the nature of the marks left by really successful vaccination, such cases only point out the weakest part of our vaccination system, the manner in which successful vaccination is sometimes improperly certified. Convinced by undeniable figures that the rate of mortality from small-pox in England and Wales during the past twenty-five years of compulsory vaccination has been less than half that which prevailed during the eleven preceding years of civil registration for which records exist, and knowing that, whereas in the seven years 1848–54 no less than 43 per cent. of the deaths from small-pox were of children aged between one and five years, the proportion of such deaths in the seven years 1871–77 did not exceed 17 per cent., we cannot hesitate to attribute these results to vaccination. Regarding therefore every death of a child from small-pox as evidence of neglected or imperfect vaccination, we can but insist that we ought at least to know the true causes of the partial failure of our compulsory system. Until this be known we are not in a position to take the necessary measures for removing the defects and imperfections of a system which has already exercised so marked an effect upon small-pox fatality.

Annotations.

"Ne quid nimis."

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

NEARLY three years ago—viz., on the 9th November, 1875—at the close of an animated discussion upon the relations of croup and diphtheria, it was resolved, upon the motion of Dr. Charles West, seconded by Dr. Dickinson, that the expediency of appointing a "scientific committee to examine into the relation existing between the diseases commonly known respectively as membranous croup and diphtheria" be referred to the Council. The Council thereupon nominated the following gentlemen to serve on this committee:—Drs. West, Dickinson, Gee, Hilton Fagge, Semple, Greenfield, Payne, and Mr. Howse. Dr. West, on his election as President of the Society, resigned his seat on the committee, and with it the chairmanship, to which Dr. Dickinson was appointed. Dr. Greenfield has acted as secretary throughout, and much praise is due to him for the large amount of labour he has expended on the work. The meetings of the committee have been very numerous, and although they sent in a report, which was read at the last meeting of the Society, it was evident that they felt that there was much yet to be learnt on the subject. They are to be congratulated upon the successful completion of their difficult task. The conclusions at which they have arrived will be found in another column. It will be seen that they deal chiefly with the etiology of membranous laryngitis, which has been found to arise from the diphtheritic contagion, from exposure to foul air and water (apart from diphtheria), in the course of typhoid fever, scarlet fever, or measles, and, lastly, perhaps from mechanical or chemical irritation of the laryngeal mucous membrane. As to cold being the determining cause of membranous laryngitis, it is instructive to note how little evidence was gleaned upon this point by the committee. The relegation of the term "croup" to clinical phraseology will, it may be hoped, be generally accepted, and after the clear definition given of "membranous" inflammation, it may also be expected that the terms "croupous" and "diphtheritic" will concurrently disappear from pathological terminology.

It was obvious that the extremely elaborate report could not be adequately discussed on the evening on which it was read, although at first there seemed to be some fear lest it should meet with so undeserved a fate as this would have been. The members of the committee seem naturally anxious that their conclusions should be well weighed, and fully debated; and the proposition that fell from Dr. Habershon, that such discussion should be postponed, was gladly received by the whole meeting. Indeed, had not discussion been invited by the President at the time, it would have been far better to have closed the meeting on the conclusion of the reading of the report. But so much uncertainty seemed to prevail—whether, in the first place, it was according to precedent to discuss the conclusions of reports submitted by committees, or, in the next place, whether it were possible to discuss this report at all without careful consideration of its multitudinous facts—that there was risk of the subject being dropped until Dr. Habershon came to the rescue. It now remains for the Council to so circulate the report among the fellows of the Society that ample time and opportunity may be allowed them to digest its details, and arm themselves for a debate which shall be worthy of the chief of our medical societies.

PANICS IN PUBLIC ASSEMBLIES.

PRESENCE of mind is an attribute not to be secured except by the training of a well-constituted organism. Face to face with imminent peril, real or imaginary, resolutions of self-control are cast to the wind, and nothing but habit—the habit of instant thought or of discipline—will serve to preserve composure. This is why occurrences so terrible as those which have recently been reported in the newspapers seem unpreventable. It is useless to argue, because the judgment of the majority is fully convinced of the folly crowds again and again commit. The panic that runs through a multitude is to the mass of minds irresistible, and nothing short of coercion can control the conduct of a crowd when scared. That being the fact, it is incumbent on the guardians of the public safety to institute such precautions against the danger of a stampede as shall be effectual in the greatest emergency. There is something almost comic in the reliance on "additional" modes of exit to be used in cases of urgency. Apart from the fact that extraordinary machinery of any kind is seldom in working order when suddenly wanted, there is the circumstance that crowds have an uncontrollable tendency to hold together in a panic, and are almost certain to seek the same mode of exit in a moment of danger. If the Lord Chamberlain, or some other authority, would only enforce the plain rule that every large place of assembly shall be completely divided into small departments with wholly distinct and spacious ways of egress, the occurrence of these calamities would be impossible. For example, the stalls of a theatre should be entered and left by side openings opposite the extremities of *each* row of seats, instead of

being approached and vacated by small doors half way down to the stage, as in nearly every theatre in use in this country. An arched screen with curtains, instead of doors, opposite each end of the stalls, should divide this part of the house from a capacious corridor with free exit to the street. The pit should be entered and emptied by the same construction, and the like principle applied to the dress circle and boxes, upper and lower. We strongly urge the reconsideration of the construction of theatres and places of public assembly generally. The question was not adequately investigated by the Fire Committee or by any other court of inquiry which has been instituted, and there is much to be urged by way of suggestion and remonstrance.

CONGRESSES.

MAY we venture to hope that the absence of any true representative of British sanitary science at the International Hygienic Congress recently held in Paris is an indication that a sense of the unreality and inutility of these assemblages is beginning to dawn upon us? England has much to answer for in this matter of Congresses. This country has for some time been at the mercy of a Congress mania. Congresses have become a bane of our social life, and are beginning to infect seriously our political life. No doubt there is much to be said in favour of the occasional gathering together, for the interchange of thought, of individuals interested in particular subjects, and the ideal view of a Congress is singularly seductive. But in practice it is found that such ideal can only be approximately obtained by organisations such as the British Association for the Advancement of Science and the Social Science Association; and even with these Associations, particularly the latter one, the tendency of these Congresses to become mere meetings for the self-glorification of a few individuals has been most painfully marked. Of the promiscuous Congresses which have become common among us, the best that can be said is that if not frequently absolutely mischievous, the amount of good they do is altogether disproportionate to their pretensions. Apart, however, from their actual object, these Congresses seem at least to show how readily human vanity is tickled. What can be more gratifying to a man who, it may be, is conscious of having given special and not unprofitable attention to a particular subject, but who has been living a retired life, to receive by the morning's post, under some inscrutable influence, a superb card, with other papers, inscribed with the name of a high-sounding Association, inviting him in courteous phrase to give the Association at a certain time the benefit of his peculiar researches? Is it surprising that, until he learns from bitter experience otherwise, he looks upon this as a pleasing recognition of his own virtues, and is flattered accordingly? It is not till later that he learns that the invitation has been issued to him after the same fashion and on the same principle that a tradesman issues his circular, and that he is not of the least concern except so far as he may be utilised for the glorification of the Association and its manipulators.

THE EUCALYPTUS GLOBULUS.

THE current number of the *Popular Science Review* contains an interesting article by Betham Edwards on the Eucalyptus globulus. It was discovered, it appears, by the French naturalist Labillardière in the voyage undertaken with the object of searching for *La Perouse* in the year 1792. He thus describes his discovery: "The eucalyptus, one of the loftiest objects in nature, only bears flowers towards its summit. The trunk is suitable for purposes of naval construction, and would serve for masts, though not so light and elastic as that of the pine. We were obliged to fell one of them in order to procure the flowers. The sun was then very hot, and the sap rose to the surface abundantly. This handsome tree of the myrtle tribe has a thin bark; the branches curl a little in shooting upwards, and have alternate leaves slightly curved. The bark, leaves, and the fruit are aromatic, and might be substituted for those of other trees hitherto supplied by the Molucca islands." He named the tree Eucalyptus globulus, the primary name (meaning "well-concealed") being referable to the calyx, and the trivial to the similarity of its fruit to a coat-button. The trees grow with great rapidity, and attain the majestic height of between 400 and 500 feet. In England few planting experiments have been successful, though, owing to the mildness of last winter, some specimens in gardens at Dulwich Common of a year's growth are already three feet in height. Madame Bodichon describes a young Algerian eucalyptus forest as consisting of trees which, though only seven years of age, and planted on bad soil, were already fifty feet high; and states that it produces a curious impression to walk in the dim twilight of this Australian-African forest, and to think that this was also a wood of the Miocene period. The smell of the forest is delightfully resinous and warm, and the trees are much frequented by birds, the flowers attracting multitudes of flies and bees. It grows in perfection in South Africa. The genus contains about 150 species. Little attention was paid to the plant till Baron Müller, of the Melbourne Botanical Gardens, and M. Ramel, a man of business, and both enthusiasts in regard to its attributes, began to plant it in various places, and notably in Algeria. This proved a congenial soil for its development, and it now covers many acres. Two millions have been raised chiefly from seed, and they have been known to grow thirty yards in ten years. The properties of the bark as a remedy in intermittents are well known, but Dr. Mierques, of Algeria, gives a list of skin diseases cured by the use of the eucalyptus tar, and states that the leaves, placed in a bath, relieve rheumatic and neuralgic pains, and lozenges are used for throat and lung affections. Besides these, many artistic preparations are made from the tree, as sticking-plaster, tooth powder, toilet water, tracing paper, oil for preserving natural and anatomical specimens, and veneer.

MEDICAL SKIRMISHES AT SHEFFIELD.

SHEFFIELD, possessing a wide-world fame in quality of cutlery, can cut sharper than a two-edged sword when medico-ethical topics crop up in its midst. Some few weeks ago, we commented emphatically on the conduct of the Local Board in relation to the treatment of their medical officer of health. This knotty point is, we believe, still undecided. But meanwhile, "the powers that be" in this land of iron and steel are between the horns of a dilemma as to how they should treat certain recalcitrant parochial surgeons, who, naturally enough, like to have drugs dispensed in a way calculated to do their patients the most good, and so to get them off the hands of the guardians as speedily and as creditably as possible. An excited chemist and committee-man, by name Hudson, remarked "that the doctors were always showing the guardians up, and now he would see that they got it strong," and after many discursive remarks of this kind had been made, the chairman concluded a lively debate (at a purely guardian's meeting) by remarking that "it would be no use talking to a medical man, even for seven years." Mr. Matthew Leach, who formed one of a medical deputation to arrange the matter with the guardians, remarked that the worthy alderman evidently believed that the whole composition of the human body changed within the period of seven years, and so had built up his own theory on the subject that perhaps the mind changed as well. (Laughter.) Therefore if the chairman argued with them after seven years they might be brought round. (Laughter.)

The upshot of all this was that Mr. Hudson apologised, "as it was the proudest day of his life to stand there in the presence of six medical men and hear one of them say that a chemist could prepare medicine better than he could himself." And the medical officers may now arrange the dispensing of their drugs in the manner most convenient to themselves. We think that the Sheffield medical officers (poor-law and sanitary) have exercised a wise discretion. For as Mr. Leach, their spokesman on this occasion, kept his temper (a difficult thing to do under such circumstances), and indulged in a little timely *facetiæ*, he brought matters to an issue which can be maintained without much difficulty and with little expenditure of dignity on either side. The seven years allusion was eminently happy, because it tickled the humorous palates of the Sheffield body corporate, the members of which enjoy a joke even when launched against themselves.

IMPERIAL AND COLONIAL MEDICAL REGISTRATION.

WE publish in another column a very important letter on the above subject. The writer, a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, desirous of being registered in Canada, with a view to practising there, wrote to the Registrar for instructions on the subject. His letter was not answered. He then went to Toronto in person, and was informed that his case would be considered on a certain early day. But before the day arrived, he was visited by a private detective, and taken to Stratford to plead guilty of being an unqualified practitioner within the meaning of the Ontario Medical Act, and ordered to pay a fine. This is a most outrageous injustice in the name of medical law, and, though the proceedings were afterwards annulled in virtue of the order of the President of the College of Physicians and Surgeons of Ontario, it appears to us that the College or the Council, under whose authority the proceedings were taken, owes Mr. Skirving an apology. It is equally clear that Mr. Skirving is entitled to registration in Canada on payment of the fees, on the ground of being registered in the Medical Register of the United Kingdom. From the President's letter, it would seem that the College of Ontario feels that its relations with the Medical Council of the United Kingdom do not permit them to register Mr. Skirving. In other words, they will only register on terms of reciprocity. This determination seems to us alike illegal and narrow, though it is mixed up with some views which in the abstract are reasonable enough. The colonies are justified in making every effort to have their good diplomas recognised, but the imperial law is unmistakable, that persons registered at home are entitled to be registered in the colonies on payment of the necessary fee.

YELLOW FEVER.

A COMMITTEE, consisting of ten members representing the Medical and Pathological Societies of New York, has been appointed to report upon the pathology of yellow fever, still epidemic in the Southern States. The results of the inquiry will be highly interesting to the profession throughout the world. The following observations on the malady, deduced from experience of the present outbreak, and taken from the pages of the *New York Medical Record*, will be read with attention by those whose sphere of action renders them liable at any time to the task of combating a visitation of yellow fever:—The yellowness of the skin does not appear in more than one case in five. Black vomit is the most fatal symptom, and somewhat more than half the cases die when it sets in. Next in order as a frequent cause of death is congestion of the kidneys, and next congestion of the brain, which kills in 10 per cent. of cases. According to a record of 200 malignant types, the temperature in fatal cases is about 101° F. on the first day, reaching 105° in the early part of the second day, but falling later on in the same day to 103°, from which point it again rises on the third and last day to about 105°, which temperature is maintained until death occurs. The days of greatest danger are the third, fifth, seventh, and ninth. There was often found an absence of the initiatory chill, with but little headache and no pain in the back or loins until the fever had set in. As regards treatment, the more simple the interference the better chance the patient was thought to have. Our readers will learn with sincere regret that the profession in America has suffered severely during the epidemic. A portentous death-roll has been published, which cannot fail to lead to a systematic effort to assist the families of those who fell victims to a self-imposed duty.

There seems, according to last advices, to be a marked and steady diminution in the number of cases at New Orleans, owing to the frosts. A total of 42 deaths occurred in that city on the 23rd, and 20 at Memphis. But business is reviving, and the relief associations are being dissolved. The fever appears to have reached the island of St. Thomas, for the Danish Government has received intelligence that four soldiers have been stricken with the disease, and that the fever is of a very virulent character.

TRICYCLES AND BICYCLES.

IT is satisfactory to notice the progress which the tricycle is making among those who delight in strange modes of locomotion. If the vehicle with three wheels should replace that with two, there will be cause to rejoice in the change of fashion. Not only is the larger carriage less likely to inflict injury on pedestrians, there is smaller risk of accident to the rider himself. Apart from the special dangers which have been shown to attend the habitual use of the bicycle, there is the effect of the perpetual vibration which seems inseparable from the apparatus, and which is communicated directly to the spinal column. How considerable this vibration really is may be observed by any one who will take the pains to watch the movements of the rider of a bicycle closely, say from a carriage travelling in the same direction. In the tricycle the motion is not either so great or so directly propagated as in the bicycle, while the leg action is as good, and the seat is comparatively safe, and admits of a change of position at will. Tricycles are now made so light and elegant in form that nothing but the love of danger can prevent the three-wheeled vehicle taking the place of the modernised hobby-horse with two.

SANITATION AT PETERBOROUGH.

IT appears that Peterborough, in common with many other towns in the kingdom, is suffering from the effects of bad drainage and an insufficient water-supply, and has rather more than an average number of cases of enteric fever, though comparatively few have been of a severe character. The medical officer of health, some time ago, published a pamphlet on Infectious or Catching Diseases, and the best means of preventing them, and stated therein, among other axioms of popular knowledge, that it (typhoid fever) "is a highly contagious fever." The truth of this statement (which was quoted on the 5th ult. in the *Peterborough and Huntingdon Standard*) is, strangely enough, confirmed in writing by Mr. Haviland, and again, in the same local journal, is, naturally enough, simply but very forcibly confuted by Dr. Thomas James Walker, who very properly objects to the statement that the city of Peterborough is being visited by "a highly contagious disease," and has taken much trouble to prove to the Peterborough public the fallacious nature of the

doctrine held by the medical officer of health. It must of course be assumed that the sentence above quoted is simply a piece of careless writing. The writer has not given us an opportunity of reviewing his book, but we have seen a copy, and enough of it has been quoted by our Peterborough contemporary to show that so-called popular treatises should be carefully compiled and still more carefully edited. Dr. Walker has pointed out to his fellow-townsmen in a very painstaking and readable way that typhoid is not "*catching*" in the popular sense of the term. Meanwhile a little knowledge is a dangerous thing, and in the presence of an epidemic we counsel the inhabitants of Peterborough, as of all other towns affected with enteric fever, not to trust too much to popular pamphlets.

DENTIST AND SURGEON-DENTIST.

IT would be amusing to observe the panic which has been occasioned among surgeons practising dentistry by the first effects of the Dental Practitioners Act, if the question raised were not so serious as it is. While the measure was under discussion in the House of Commons we did all in our power to place the real nature of the proposal before the profession, and to warn it against the surrender of principle involved. For a time the Bill was strongly opposed, but at length, misunderstanding the effect of certain changes made, which at the time we laboured to show must be abortive, the opposition was partially abandoned, and the measure passed. As the law now stands, any person calling himself a "dentist" is entitled to be registered, and there can be no question that the interests of the fully qualified men who know the whole body as well as the teeth, must suffer seriously, while the public will be misled. In view of this inevitable consequence of a short-sighted compromise, Mr. Donald Napier, who took a conspicuous part in asserting the rights of the profession before the Bill passed, Mr. J. Hamilton Craigie, and Mr. Hamilton Cartwright, have addressed letters to *The Times* asking the public to draw the distinction the law has failed to draw. We regret to fear the effort is hopeless. While men who are *not* surgeons may describe themselves as such, provided only that they compound the title with some other expressive of a specialty—such as surgeon-dentist, surgeon-accoucheur, and the like—it is vain to expect the public, who have not the Medical Register at their fingers' ends, are careless of professional considerations, and will always judge by appearances, to draw a distinction which has no *legal* existence. We wish success to the endeavour to counteract the effects of a bad Act, passed by the Legislature, under the ill-judged sanction of the Medical Council, in a moment when the profession relaxed the vigilant care of its own interests. If the public is wise it will understand the nature of this registration of dentists, and perceive that it gives no sort of proof of competency, and should impart no legal or social status.

AGUE.

AGUE is now such a rare disease in England that researches into its pathology and etiology have been but little prosecuted of late years. One of the most interesting pathological questions connected with the disease, as Dr. Maclean observes, is "Why the miasmatic poison, unlike that of rheumatic fever, variola, or typhoid, should produce a periodical and not a continued fever?" In the case of relapsing fever a definite connexion between the occurrence of the paroxysms and the presence of a spiral organism (Spirochete Obermeieri) has been repeatedly observed. Although in ague no organism has as yet been detected in the blood of patients during the febrile paroxysms, still it is not impossible, when the research is prosecuted by as many and as skilful observers as has been the case with relapsing fever, a similar discovery may be made. But whilst we are in ignorance of the exciting cause of the recurrent paroxysms in ague, the channel through which the poison, whatever it be, is conveyed into the system is also an unsettled point. The majority of writers hold the opinion of Lancisi that the sole cause of intermittent fever is the air of marshes. Evidence, however, of very strong character seems to point to water being also a channel for the conveyance of the poison. Take, for instance, the case recorded by Boudin, of three vessels sailing from Algiers to Marseilles conveying 800 soldiers, who on shore had all been exposed to the same atmospheric influence. Two ships were supplied with good water, but the third with water from a marsh. The two former arrived at Marseilles without a sick man, but the third ship lost 13 men, and had 120 sick, 98 of whom were affected with malaria. Similar is the outbreak of ague at Tilbury Fort in 1872, quoted in the last edition of Parkes's "Hygiene," where 34 men, out of a garrison of 103, were seized with ague, whilst the people at the railway station and the coastguard men and their families just outside the fort entirely escaped. The troops had been supplied with water stored in tanks, collected from the rain-water of the roofs, whilst the people outside obtained theirs from a spring near the railway station, the atmospheric condition in both cases being the same. The outbreak of ague among the troops at Cyprus offers an opportunity for the investigation and settlement of these points, and the Government would do wisely to recognise its responsibility in this respect by appointing a commission to make a scientific inquiry into the whole question.

EXPERIMENTAL RESEARCHES ON INFECTION AND ON IMMUNITY FROM VACCINE.

AT the meeting of the Académie des Sciences of August 20th, as reported in the *Progrès Médical* (August 24th), M. Maurice Raynaud read a long memoir, the conclusions at which he had arrived being summed up in the following observations:—

First, as regards the vaccine pustule. The evolution of this vesicle is not requisite to secure immunity. Immunity is effected even when, after subepidermic inoculation, the development of the vesicle is prevented by artificial means.

Secondly, in regard to the nervous system, his experiments show that it is quite extraneous or foreign to the completion of the phenomena of vaccine inoculation. For the antecedent section of the nerves distributed to the region inoculated does not interfere with the occurrence of all the symptoms naturally following infection. Nor, indeed, does such section perceptibly modify the march of the vaccine vesicle.

Thirdly, in regard to the blood, he found that the subepidermic inoculation of an animal suffering from vaccine never produces vaccinia. This proceeding is not, therefore, susceptible of any practical application. The transfusion even of large quantities of vaccinal blood is not followed by any appreciable effect, since the animal still remains liable to be infected with the vaccine virus. It is possible, however, he thinks, that under certain circumstances the transfusion of a considerable quantity of vaccinal blood into an animal may render it incapable of contracting vaccinia without inducing any other change in it. But, even then, the immunity thus acquired could not be propagated in the same way to a third individual. It hence appears to be highly improbable that the blood is the means by which the vaccine virus generalises itself through the economy at large.

Fourthly, in regard to the lymphatics, he finds that the subepidermic inoculation of lymph taken from a vaccinated region, or taken beyond the nearest ganglion, gives the same negative results as the subepidermic inoculation of vaccinal blood. On the other hand, by injecting some

grammes of this lymph into the blood of a horse, M. Raynaud has succeeded in inducing the appearance of "horse-pox." This lymph, then, appears to possess some virulence if employed in somewhat strong doses.

Fifthly, in regard to the lymphatic ganglia, he finds that after normal vaccination the ganglion nearest to the spot vaccinated is invariably congested, although hitherto this fact has been overlooked or misunderstood. The congestion quite justifies the application of the term vaccinal bubo applied to it. The bubo is indolent, and presents no inflammatory reaction. Nevertheless, inoculation with the juice of this ganglion, whenever it may be performed, does not produce cow-pox. It is possible, then, to recognise traces of virulence in the lymphatic system between the place of inoculation and the nearest ganglion, but beyond this point no traces are discoverable. This circumstance seems to suggest that an elaborating function may be attributed to the lymphatic ganglia, expressing itself in the disappearance of virulence and the supervention of immunity, two facts which are simultaneous and correlative. It cannot, however, be affirmed that the intervention of a ganglion is an indispensable condition, since, as already stated, immunity may be obtained by the direct injection of the vaccine virus into the bloodvessels. What appears to be certain is that the vaccine virus, in traversing the lymphatic ganglia, loses its inoculability, which fact establishes a fundamental difference between it and charbon, a difference which, in view of a general theory of the nature of virus, it is important to recognise.

THE COLLEGE OF SURGEONS.

As it is likely there may be three vacant chairs in the Board of Examiners of the College (for Anatomy and Physiology) declared shortly, it may be interesting to state how the different hospitals are at present represented. St. Bartholomew's and St. George's have each two, the former being represented by Mr. W. S. Savory (the chairman) and Mr. H. Power, St. George's by Mr. Holmes and Mr. Pick; King's College Hospital by Mr. J. Wood; University College Hospital by Mr. Heath; the Middlesex Hospital by Mr. Hulke; Guy's Hospital by Mr. Durham; and St. Thomas's Hospital by Mr. Wagstaffe. On the Court of Examiners three hospitals are each represented by two of their surgeons—viz., St. Bartholomew's by Mr. Holden (the senior vice-president) and Mr. Savory, University College Hospital by Mr. J. E. Erichsen (the junior vice-president) and Mr. Marshall, Guy's Hospital by Messrs. Birkett and Cooper Forster; St. Thomas's Hospital by Mr. Le Gros Clark; the London Hospital by Mr. Curling; St. George's Hospital by Mr. Holmes; and the Cambridge School, the only provincial represented on either, by Dr. Humphry. All the members of the Court of Examiners are members of the Council of the College; on the Board there are only two—viz., Messrs. Savory and Holmes.

The vacancy created in the Council by the death of Mr. Hilton will not be filled up until the annual meeting of the Fellows of the College in July next, when in addition to this vacancy three others will be declared in the Council by the retirement, in the prescribed order, of Messrs. Le Gros Clark, T. Spencer Wells, and George Critchett.

COLONIAL VITAL STATISTICS.

THE vital statistics of Queensland, Australia, for the past year, that we have just received, show that the total estimated population at the end of last year consisted of 203,084 persons, 124,924 of whom were males and 78,160 females. These numbers represent a total natural increase of 3706, and a total increase by immigration over emigration of 12,188 persons. An epitome of causes of death for the year shows that 31·44 per cent. died from zymotic, and 13·09 per cent. from constitutional diseases, 27·94 per cent. from local, and 21·59 per cent. from developmental diseases, whereas 5·13 per cent. of deaths were due to violence, and in 0·81 per cent. the causes were not specified. These and other statistics that reach us from Australia, New Zealand, and our Canadian possessions from time to time show that they are collected with great care and, as we suppose, at some considerable cost. But they are, nevertheless, obviously and seriously incomplete, because no deductions are drawn from the elaborate and industriously compiled tables before us. Surely the figures, before being formally submitted to the Government, could be made to pass through the hands of a professional expert, who, possessing a thorough knowledge of the country, as well as of his profession (in this case medical), could present to us some useful lessons designed to aid our knowledge of the climate, and thus point the way to the prevention of the most common zymotic diseases of the colony, and so to the average maintenance of health.

ILLNESS IN LODGINGS.

PENDING the decision of the Legislature to institute a general registration of disease, it is important to enforce the need of a little disinterested prudence on the part of persons letting lodgings in seaside towns and places of popular resort. It is not, of course, possible to ensure immunity from disease for the servants in lodging-houses, or to avoid the occurrence of communicable maladies, but great responsibility rests on those who live by receiving families into their houses to take every known precaution for the preservation of health. One of these precautions would obviously be to call in a medical man without delay when sickness attacks any member of the domestic household. Unfortunately this is a step which lodging-house keepers are particularly anxious to avoid, because if the practitioner, as in duty bound, expressed an opinion that the malady was "catching," it would be necessary to inform the occupants of the several apartments, and, without doubt, the house would be speedily cleared. It is generally a thankless task to urge people to act with spirit against their own interests, but it is needful to draw attention to this matter, and it would conduce greatly to the avoidance of unpleasant disasters if visitors to strange places would insist strongly on a medical man being called in whenever a case of illness occurs either among the servants of the house or other inhabitants. Even looking at the matter from the standpoint of common humanity, it is not expedient that sufferers should be denied the aid which medical advice can afford, on the sole ground that it is feared the practitioner consulted may express a judgment which would entail loss on the housekeeper, by frightening away the lodgers.

THE SANITARY STATES OF LEEDS AND BRADFORD.

THE medical officers of health of the two great towns of the West Riding, Leeds and Bradford, have, in their recently-issued annual reports for 1877, both the gratification of reporting exceptionally low death-rates for the year. Dr. Goldie reports for Leeds the lowest death-rate for ten years as well from general (22·0 per 1000) as from zymotic diseases (3·2); and Mr. Butterfield for Bradford practically reports the same (general death-rate, 1877, 21·9). Both gentlemen, no doubt justly, ascribe much of this improvement in the health of the populations under their observation, as shown by the death-rate, to the effects of the increased and increasing care given to the detailed sanitary administration of their districts. Dr. Goldie, especially, notes a decrease of the high diarrhœal death-rate—one of the chronic scandals of Leeds; and would leave us to infer that this con-

curs with increased internal cleanliness in respect to excremental filth. But it is obvious, from his observations on "Town Conservancy," that, notwithstanding some comparatively insignificant improvements, the Leeds Corporation yields up most slowly and reluctantly its old privy-system.

Mr. Butterfield's report, apart from its details of local moment, has a general interest from the illustrations it affords of the importance of provision being made beforehand for dealing with infectious diseases by isolation. Bradford possesses a noble infectious disease hospital, established by voluntary subscription, and Mr. Butterfield gives several instructive examples of the advantages afforded by this institution in arresting the spread of infectious disease. With regard to small-pox, to which particular reference is made, he observes: "Had it not been for the facilities offered by the Fever Hospital"—the hospital in question—"and the promptness with which cases of small-pox were reported and removed, there can be no doubt that we should have had a serious epidemic of this disease."

CYPRUS.

THE latest advices we have received from Cyprus state that the sick-list has not decreased, but the cases are much milder in type, chiefly ague. There have been some relapses from remittent fever. The rains have not set in, but the weather is much cooler, especially at night. The range of temperature is very great, the thermometer in a tent at noon standing at 96°, and below 60° at midnight. The cold chilly nights will probably tend to produce diarrhœa and hepatic complications in those men who are already enfeebled by attacks of fever. A large number of convalescents are on a cruise in one of Her Majesty's ships.

The men have been plentifully supplied with blankets and warm clothing. The commissariat bakeries have been established, and the ration bread is an improvement on the native bread hitherto supplied. Fruit and vegetables are plentiful. By direction of Sir A. Home an extra ¼lb. of meat is given to each soldier daily.

WHAT IS A STILL-BIRTH?

SECTION 40 of the Births and Deaths Registration Act renders any person who "wilfully makes, gives, or uses any false statement or representation as to a child born alive having been still-born, liable for each offence, on summary conviction, to a penalty not exceeding ten pounds, and on conviction on indictment to fine or to imprisonment with or without hard labour for a term not exceeding two years, or to penal servitude for a term not exceeding seven years." Bearing in mind these heavy pains and penalties, and the fact that the same Act imposes difficulties in the way of burying the body of a still-born child without the written certificate of a registered medical practitioner, it is eminently desirable that no doubt should exist as to the exact definition of the term "still-birth." Dr. Priestley, the President of the Obstetrical Society, declares that it is not only convenient, but almost essential, from a medico-legal point of view, to regard respiration as a proof of life, because its occurrence can be subsequently proved, if necessary, by examination of the lungs. We know that abroad, especially in France, the term "still-born" is very loosely and widely interpreted, but there is little ground for supposing that its definition is to any extent abused in England. The subject, however, is of so much importance, and so closely affects our statistics of infant mortality, that we very much regret to find the use of the term incomprehensibly strained in a paper read by Dr. J. G. Swayne, at the last meeting of the British Medical Association, "On the Effects of Forceps-delivery on the Infant." Dr. Swayne, in speaking of seventeen still-births, says, "In thirteen of the seventeen, the child was dead when born," and adds, further on, "in the remaining four cases out of the seventeen, the child *lived for some time after birth*, but ultimately died of the injuries then received." The idea of a still-born child "living some time" is so incongruous that we may at least hope that Dr. Swayne will find but few supporters in such a use of the term. It is so desirable, however, from many points of view, to secure the object of the above-quoted section of the Births and Deaths Registration Act, and to prevent the certification as still-born of any infant that has fully respired, that we feel it desirable, nay, necessary, to protest against the use which Dr. Swayne makes of the word "still-birth."

THE BARNSLEY POISONING CASE.

THE circumstances of this case are not a little remarkable, and seem worthy of careful recapitulation. It appears that on Wednesday, Sept. 11th, in an eating-house in Barnsley, called the Albert Dining Rooms, two bread puddings were made, a large one and a small one. Of the large pudding Mr. Thresh, the proprietor of the eating-house, his four children, a customer named Thawley, the cook who made the pudding, and a waiter, partook. They all suffered from symptoms of irritant poisoning, and two of them, Emma Thresh, aged three, and Henry Mason, the waiter, aged fifty-two, died, the one after an interval of about thirty-four hours, and the other at the end of a week. The post-mortem examination gave abundant evidence of the action of an irritant poison, and Mr. Alfred Allen, lecturer on chemistry at the Sheffield School of Medicine, gave important negative evidence by deposing that his examination of the pudding, of the materials of which it was composed, of the vessels in which it was made, and of the excreta of the two deceased persons, had failed to throw any positive light on the matter. It was certain that the symptoms were not caused by any of the well-known irritants, for he established the absence of arsenic, antimony, mercury, copper, and many others.

It appears that the pudding was made of crusts of bread, some of which were eight or ten days old, and several witnesses deposed to the fact that the pudding tasted and smelt sour and disagreeable, and "not like other puddings." A puppy which was fed for two days on the fatal pudding received no harm. The most likely explanation would seem to be that which was adopted by Mr. Allen, that the symptoms were caused by the growth of some mould in the bread of which the pudding was made, and he stated that he had detected the presence of a fungus, not only by colour tests and odour tests, but by actual propagation. The jury arrived at a verdict to the effect that there was no evidence to show how the pudding became unwholesome. Portions of the pudding have been forwarded to the Home Office for analysis, and the results of this further examination will be waited for with interest.

CAMBRIDGE MEDICAL SCHOOL.

THE number of students in the medical school of the University of Cambridge increases, and, we understand, is greater this term than in any preceding year. Judging from the appearances in the dissecting room, they are setting to work in earnest, and there is a good supply of subjects for them. The students are dispersed among the different colleges, Trinity, St. John's, Christ's, and Clare, having their share, and some are entered as non-collegiate. The recent regulations of the University have been much in favour of medical students, especially those by which they are enabled to pass the Previous Examination in the first term, and then at once devote themselves to their medical studies; and a still more important regulation is that which allows them to pass the ordeal in general subjects (classics, mathematics,

&c.) through the Senior Local, the Higher Local, or the Oxford and Cambridge School Board Examination *before* coming to Cambridge. This is accepted in lieu of the Previous Examination, and the student who has done this may commence his medical studies immediately on coming up to Cambridge at the beginning of his first October term.

DIPHTHERIA.

THE researches of Schweniger, undertaken at Munich, on the inoculation and character of the diphtheritic poison, have led him to the conclusion that the fungus found in the false membrane cannot be regarded as the essential bearer of the contagion; because, first, the micrococci are, as a rule, found only in the epithelial layer; secondly, because in less recent bodies, as when rapid decomposition of the separated particles has taken place, they are found in these also, and thus appear *pari passu* with the septic or pyæmic poisons, which are found at the same time in the adjacent vessels and lymphatic glands, and elsewhere in the body, especially in the kidney. These are, however, only an accidental accompaniment of diphtheria. The substance from the pharynx and trachea, introduced into the bodies of other animals by inoculation, never produces the combination of symptoms which we recognise as diphtheria, nor the special anatomical changes in the throat and trachea. Inoculation with the diphtheritic fungus only gives rise to the symptoms produced by inoculation with the organisms which accompany putrefaction.

THE CITY OF GLASGOW BANK.

WE learn with great grief that some very much respected members of our profession are among the shareholders in the City of Glasgow Bank. This fact is only too much precedented. Medical men do not amass great fortunes like commercial men, and they are naturally anxious to turn to the best account what they do manage to save out of their very hardly-earned income. Moreover, they are unsuspicious, and readily trust in the probity of those at the head of their commercial community. Such views, however, have received too many rude shocks to be justifiable. We would strongly recommend our brethren to be much more careful and more critical in making their investments, and to ponder the lessons taught by the disclosures now being made, and by the fate of many members of the profession.

MR. G. SMEED, of Gore Court, has very generously given nearly two acres of land as a site for an infirmary for infectious and contagious diseases, to be erected at the joint expense of the Milton Improvement Commissioners, the Milton Guardians, and the Sittingbourne Local Board.

IT appears that the clothes of those who die from cholera at Casabianca, Morocco, are sold by public auction in the market of that place, and hence we cannot wonder that the disease increases and multiplies without let or hindrance.

A TELEGRAM, dated Rawul Pindee, Wednesday, which appeared in the *Standard* of Thursday last, states that "at Peshawur fever prevails among the frontier troops. One-third of the men of the 10th Lancers are in hospital."

WE are glad to see that Surgeon-Major J. H. Porter has been awarded at the Paris Exhibition the bronze medal for his collection of splints and apparatus for aiding the sick and wounded in war.

DR. AQUILLA SMITH has been re-elected for the ensuing year representative of the College of Physicians in Ireland, on the General Medical Council.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

Third Session 1878.

THURSDAY, OCTOBER 17TH.

AFTER the President's opening address, which was reported in our last number, a report was received from the Registrar on what had been done in regard to the registration of dentists. It stated that about a thousand persons had been provisionally registered under the new Act. Of these 86 were licentiates in dentistry of the Royal College of Surgeons of England. Of those who were registered as having been engaged in practice at the date of the passing of the Act, 556 declared themselves to have been practising dentistry separately, 2 in conjunction with medicine and surgery, 274 in conjunction with pharmacy, 1 with medicine and pharmacy, and 1 with pharmacy and surgery in the army. There were 44 applicants whose claims had been reserved for the decision of the Council. Of those who claimed as foreign dentists, two stated that they had received their diplomas from the "American University of Philadelphia," an institution which, according to a despatch sent to the Foreign Office, had no existence, but which one of the applicants stated to be still in being.

The Council then resolved itself into Committee to consider the measures requisite for carrying into effect the Dentists Act (1878).

Dr. WOOD moved, "That the following be the form of Register for United Kingdom dentists, for colonial, and for foreign dentists, to be kept in separate alphabetical lists, as prescribed by the Act:—

Name.	Address.	Date of Registration.	Description and Date of Qualifications.

The schedule, he said, was exactly in the form prescribed by Clause 11 of the Act; but one point for the Council to consider was whether the Register should contain only dental qualifications, or whether other qualifications should be added. By Clause 11 the Council had power to make orders for the registration of any additional diplomas &c. "in respect of a higher degree of knowledge than is required to obtain a certificate of fitness under this Act." The question was whether the clause meant only a higher qualification in dentistry, or also other medical qualifications. His own feeling was that the Council should encourage the registration of additional qualifications; but, as there was a doubt about it, he thought that the opinion of counsel should be taken on the subject, and if it were in favour of an additional column for medical and surgical qualifications, such as were registrable under the Medical Act of 1858, such a column could be added. Meanwhile it would perhaps suffice to adopt the schedule he had proposed. There was no necessity for immediate action, because the Register would not be published till August, 1879.

Dr. HUMPHRY seconded the motion.

Dr. MACNAMARA said he saw no necessity for referring the question to a lawyer. The words of the Act were very clear, and gave the fullest power to the Council. He thought it very desirable that there should be an additional column for higher qualifications, and the Council might agree to it at once, so as to encourage candidates to seek them.

Mr. TURNER said he agreed with Mr. Macnamara in thinking that there should be an additional column, and it was for the Council to decide from time to time what additional qualifications should be inserted in it.

Mr. TEALE thought the question was much more complicated than it appeared to be. The question was whether

they should admit medical degrees, and if so, whether a man who was not registered in the Medical Register, being a dentist, could get his qualification registered by a sort of by-road.

Dr. HALDANE thought it quite clear that the "higher knowledge" mentioned in the Act referred only to higher knowledge in dentistry, and that it would be quite out of place to admit medical degrees upon the Dentists' Register.

Mr. SIMON entirely concurred with Dr. Haldane, and thought it would be a great nuisance to the profession and the public to register other titles than those which concerned dentistry. There was no doubt an ambiguity in regard to the word "knowledge," but he thought they were justified in interpreting it as meaning knowledge required for the practice of dental surgery.

Dr. A. SMITH thought that the proposed schedule conformed in every way to the provisions of the Act. Nothing was said about additional qualifications. Persons entitled to be registered under the Medical Act were to be found in the Medical Register; and it would lead to great complexity if their qualifications were to be repeated in the Dentists' Register. The intention of the promoters of the Act was that the public might be able to recognise fully qualified dentists; and it was not intended that they should be registered in any other capacity. If at any future time the medical authorities adopted a higher grade in dentistry, it could of course be registered. Clause 27 of the Act distinctly showed an intention to prevent dentists from passing themselves off as anything but dentists, providing, as it did, that a certificate under the Act should not confer any right to practise in medicine or general surgery.

Sir WM. GULL thought there should be an additional column, but how it should be filled up was a question for consideration. There certainly should be a place of honour somewhere.

Dr. A. SMITH said, if the Council should hereafter determine to register additional qualifications, it would be quite time enough to order an additional column to the schedule. If the additional column were now adopted, the Registrar would be flooded with inquiries which he and his clerks would be unable to answer, as to what was to be inserted in the column. There would thus be an enormous amount of confusion and trouble without any advantage.

Dr. WOOD said that, after listening to the discussion that had taken place, he felt satisfied that it was desirable that there should be an additional column. It was certain that the Act entitled the Council to register higher qualifications, and their object should be as much as possible to encourage dentists to seek such higher qualifications, not only in dentistry, but in medicine and surgery. He would propose afterwards that counsel's opinion should be taken as to what could be put in the additional column. Although it appeared so clear to Mr. Macnamara, different interpretations had been given by different individuals who had been consulted on the subject. He hoped it would turn out that qualifications in medicine and surgery might be registered, which would be a great step towards raising the practice of dentistry from a mere mechanical trade to a learned profession. He would therefore adopt Mr. Macnamara's suggestion as to the additional column.

Dr. PYLE thought it would be a great hardship to require candidates to pay two registration fees, one for the medical and the other for the dental register.

Dr. WOOD said that the fee for registering an additional qualification would only be five shillings.

Dr. HALDANE said that the only ambiguity was as to the meaning of the words "higher degree of knowledge." For his own part, he thought it ridiculous to say that any qualification, however high, in another department of medical science was to be regarded as a proof of a higher degree of knowledge under the Dentists Act.

Dr. FERGUS thought it premature to adopt an additional column at present. The Council had power at any time to decide upon the registration of higher qualifications, and when that step was taken it would be time to provide an additional column.

Dr. QUAIN agreed that it would be time to discuss the question of the additional column when the higher qualifications were in existence. The present column would contain alike the qualification of a licence and also the simple qualification of having practised before the passing of the Act, which were, in point of law, the same.

Sir WM. GULL was surprised to hear Dr. Quain say that the two qualifications were equal. He maintained that there was a great distinction between them, and that that distinction ought to be preserved from the commencement. The public ought to be able to distinguish, by means of an additional column, which would "differentiate" the practitioners from the first.

Mr. SIMON said that no such distinction could be made at present under the Act. Parliament had decided that all were on the same footing. With regard to the future the class of persons practising before the Act would not exist, and the minimum qualification would be a licence from the medical authorities. An additional column without any qualification to put in it would be a vacuum, which nature abhorred.

Dr. HUMPHRY said that the Act made no distinction in the several existing qualifications, and the only question was whether the Council would open a column for diplomas for higher knowledge. It would, he thought, be wise on the part of the Council to stimulate a higher education and examination for such diplomas, and the adoption of an additional column would show that such was its desire. The diplomas in question should, he thought, be confined to dentistry, but that was a question to be settled hereafter.

Dr. ORR thought that the higher titles referred not to dentistry, but to medical degrees and diplomas.

Dr. HAUGHTON said he should vote for the additional column without prescribing what should be put in it. He approved of the registration of qualifications in medicine and surgery. The public would go with much greater confidence to a man who was a physician or a surgeon as well as a dentist. In America there had been a great advance in the education and registration of dentists, and he believed that in less than ten years it would be a penal thing for a man to practise as a dentist who was not also a physician or a surgeon. No doubt the wording of the Dentists Act was ambiguous, but he thought they might take advantage of the ambiguity and adopt the additional column at once.

Dr. PITMAN said it did not follow that if additional qualifications should be registered they should be in a separate column; they might be in the column at present provided, headed "description and date of qualifications."

Dr. ROLLESTON was in favour of the registration of degrees in arts and medical degrees, but he could not vote for an additional column unless he knew what it was to contain. The object of the Register was to give the public information, as far as they were able, as to who were the best men.

Mr. SIMON moved as an amendment to Dr. Wood's altered motion that the form at first proposed by Dr. Wood be adopted.

Dr. STORRAR seconded the amendment.

On the amendment being put there were 11 votes for it and 11 against, and it was accordingly declared not carried. The original motion was then put and carried by a majority of 12 against 9. The form accordingly adopted was as follows:—

Name.	Address.	Date of Registration.	Description and Date of Qualification.	Additional Diplomas, Memberships, Degrees, Licences, or Letters.

On the motion of Dr. WOOD, seconded by Mr. TURNER, it was resolved, "That Mr. Ouvry be requested to obtain the opinion of counsel as to the interpretation of Clause 6 of Section 11 of the Dentists Act, so as to inform the Council whether, under that clause, they are entitled to register in a separate column the qualifications in Medicine and Surgery under the Medical Act (1858), held by registered dentists, or only higher qualifications in dentistry."

The following resolutions were also adopted without discussion or division:—"That the names of applicants be entered in the Register, in conformity with the Dentists Act, by the general registrar of the Council."—"That the names of those to whom certificates of registration have been issued by the general registrar be entered by him in the Dentists' Register, and that the entry bear date from the date of such provisional registration."—"That a fee of £2

be paid by those dentists who apply for registration before January 1st, 1879, and a fee of £5 by those who apply on or after that date."—"That a fee of 5*s.* be paid for entering additional diplomas, memberships, degrees, licences, or letters in the Dentists' Register."—"That a fee of 5*s.* be paid for the restoration to the Dentists' Register of names that have been erased therefrom (by neglect of duty on the part of registered dentists) under Section 12 of the Dentists Act."—"(α) That the Dentists' Register be printed, published, and sold at the price of 1*s.* a copy (or 1*s.* 3*d.* post free). (β) That the first edition of the Dentists' Register be published as soon as possible after the first day of August, 1879. (γ) That in subsequent years the Dentists' Register be published at the same time with the Medical Register, that is to say, at the beginning of each year, and that it be also issued to public offices and functionaries with the Medical Register. (δ) That the additions made in the Dentists' Register from January to June in each year be printed and issued at the same time with the additions made in the Medical Register."

Dr. WOOD moved, "That pupils who have been articled to their fathers or to brothers—between whom money transactions would be nominal—be in all other respects considered to be in the same position in regard to registration as those pupils, provided for in the first part of Section 37 of the Dentists Act, who have paid premiums for instruction."

The motion was seconded by Dr. HUMPHRY, and agreed to; as were also the following:—"That students who commenced their professional education by apprenticeship to dentists entitled to be registered, or by attendance upon professional lectures, before July 22nd, 1878 (when dental education became compulsory), be not required to produce evidence of having passed a Preliminary Examination in Arts." "That the registration of dental students be carried on at the Medical Council office in London, or at the Branch Council office in Edinburgh or in Dublin, in the same manner as the existing registration of medical students, and, with the exceptions specified in the foregoing resolution, subject to the same regulations as regards Preliminary Examinations in Arts."

Dr. WOOD moved, "That the payments made out of the Dental Registration Fund for defraying the expenses of dentists' registration, and for other expenses of the execution of the Dentists Act, be in proportion to the expenses incurred in transacting the business of the Medical and Dentists Act respectively."

Dr. HUMPHRY seconded the motion.

Dr. A. SMITH said that the Council had full control over the distribution of the fees, but it was necessary to make careful provision about it. The 32nd section of the Act provided that any surplus should be applied to "the support of museums, libraries, lectureships, or for public purposes connected with the profession of dentistry or dental surgery, or towards the promotion of learning and education in connexion with dentistry or dental surgery." If careful provision were not made for keeping an accurate account of the expenses of the Council in regard to the Dentists Act, a great deal of difficulty might arise. They were bound to keep the accounts separate. If there were any misapplication of the funds it would be open to the body of dentists to call them to account.

The motion was then put, and agreed to.

Dr. A. SMITH moved, "That the general registrar shall not retain in his hands more than one hundred pounds of the Dentists Registration Fund, but shall lodge all moneys, as they accumulate, in the Bank of England to the credit of the treasurers of the General Council, who are the treasurers appointed by Section 33 of the Dentist Act, 1878."

Dr. HUMPHRY seconded the motion, which was adopted.

Dr. WOOD moved, "That the sum of one hundred guineas be voted out of the Dentists' Registration Fund to Mr. Miller, the general registrar, in consideration of duties which have devolved upon him in connexion with the Dentists Act, and which have been so ably and zealously performed by him; and that the subject of an addition to his salary be reserved for the future consideration of the Council." The Council, Dr. Wood said, was greatly indebted to Mr. Miller for the zealous and able way in which he had performed a very difficult task. His time had been incessantly occupied during two or three months; and the report he had presented showed that the Council had reason to congratulate itself on possessing an officer so zealous and well qualified. (Hear.) With regard to his future salary, the Executive Committee thought it would be better to wait till the end of the financial year. A large sum had been paid into the treasury under the Dentists Act; but in future years the number of registrations would be comparatively small, and a part of the interest on the capital would be required to supplement the annual income.

Sir D. CORRIGAN said he had objected to the appointment of Mr. Miller—not, however, on any personal grounds, but because he thought that the office of registrar should have been conferred on some member of the profession. His objection was purely one of principle, but he should be glad to be permitted to second the motion, and he could bear testimony to the immense labour to which Mr. Miller had been subjected.

Mr. MACNAMARA thought that the honorarium should be 150 guineas.

Dr. WOOD said that Mr. Miller's salary as dental registrar, when fixed, would date from the commencement of the Act.

The PRESIDENT, in putting the motion, testified to the careful and industrious manner in which Mr. Miller discharged the onerous duties of his office.

The motion passed by acclamation.

Mr. MILLER expressed his gratitude for the recognition of his services, especially because it showed that the Council believed that he had done his best under the circumstances.

Dr. PYLE asked if any remuneration would be given to the clerks for the extra work that had devolved upon them.

Dr. WOOD said that the matter was under the consideration of the Executive Committee.

Mr. TURNER inquired what the duties of the local registrars would be under the Dentists Act.

The PRESIDENT said he declined to give a legal opinion on the subject. Mr. Jenkins had expressed his private (not official) opinion that local registrars at present had nothing to do under the Act, but they could perform such duties in relation to registration (as deputies of the general registrar) as the Council might direct. At present there was no local register, because none had been directed by the Council; but, according to Mr. Jenkins's view, a local register could be kept in Scotland and in Ireland by the local registrar as deputy of the general registrar.

Dr. WOOD thought that there had been a bungle in the Act in reference to the local registers. By section 33 the treasurers of the General and Branch Councils were required to keep account of all moneys received by them, but where were they to get the moneys from?

Dr. A. SMITH said it was evident that under the Act the local registrars had nothing to do until the Council appointed them their duties.

Dr. HAUGHTON moved, "That it shall be part of the duties of the local registrars in Scotland and Ireland to keep registers of persons in Scotland and Ireland desirous to register under the Dentists Act, and to receive the fees payable for such registration."

Mr. MACNAMARA seconded the motion.

Dr. HUMPHRY said that all the documents being sent to the general registrar ensured greater uniformity in the carrying out of the Act than could otherwise be obtained.

Mr. MACNAMARA contended that the Act contemplated the establishment of local registers, and hoped that the Council would make the necessary arrangements for the purpose.

Dr. WOOD said it was quite clear that until the Council defined what duties were to be performed by the local registrars, there was nothing for them to do. The matter, he thought, could be better discussed when they had had a little more experience. He proposed that the consideration of the motion be deferred to a future meeting of the Council.

Dr. STORRAR seconded the amendment. The step proposed might, he said, be a proper one to take, but he objected to the question being discussed at the time.

The amendment was then put and carried, and the motion was accordingly postponed.

The Council then resumed.

Dr. WOOD moved the reception of the following report from the Executive Committee:—"The Executive Committee have to report to the Council that, as remitted to them by the Council, the question of its constitution has been under their consideration, but that at present they are not prepared to make their final report thereon."

Dr. HUMPHRY seconded the motion.

Sir WM. GULL said that the Executive Committee had been charged with a very large duty, and he hoped their inquiry would be of the fullest and most liberal kind, and

that they would do their best to ascertain the requirements of the public and the profession. It could not be expected that they should have completed their labours, the question being an organic one and requiring the largest consideration.

Mr. MACNAMARA said that the instructions were given to the committee three months ago, and if in that time they had done nothing he should like to know how long it would take them to do something. (A laugh.)

The Council then balloted for the Executive Committee, and the following members were elected: Dr. Pitman, Sir James Paget, Dr. Humphry, Dr. Wood, Dr. A. Smith, and Dr. Quain.

A certificate of the conviction for felony of Robert Charles Moon (M.R.C.S. Eng. 1866) was read, and the Council directed the registrar to erase his name from the Register.

The Council then adjourned.

FRIDAY, OCT. 18TH.

Dr. ACLAND, President, in the chair.

The Council resolved itself into committee for the consideration of the Dentists Act.

Dr. WOOD moved, "That the Executive Committee be directed to require, from the medical authorities that grant dental qualifications, information in accordance with Section 22 of the Dentists Act as to the course of study and examination to be gone through in order to obtain such qualifications, and to report to the Council at a future meeting." A similar power, he said, had been exercised under the Medical Act, and he thought it was quite as necessary and likely to be as beneficial under the Dentists Act.

Dr. HAUGHTON seconded the resolution, and suggested that it should include not only the bodies that now grant dental qualifications, but those that intended to do so. The curriculum of the College of Surgeons of England in some respects ought not to be followed. Amongst other things, it provided that all teaching in physiology, surgery, mechanics, &c., should be given by a dentist, thus greatly narrowing the circle of teachers.

Dr. WOOD said that the Act only empowered the Council to obtain information from the medical bodies as to what was being actually done, not as to what was contemplated.

Dr. A. SMITH said that if any of the existing authorities formed a Dental Board hereafter the Executive Committee would, under the resolution as it stood, have power to make the necessary inquiry, so that Dr. Haughton's object would be attained.

Mr. TURNER, in supporting the motion, called attention to a document entitled "The dental diploma of the Royal College of Surgeons in Ireland, and the Irish Dental Diploma Committee" (reprinted from the *British Journal of Dental Science*), which, he said, had been placed in the hands of the Council, and could hardly be passed over. It appeared, he said, that a document had been freely circulated among dentists in Scotland, headed "L.D.S.R.C.I.," and it stated that "the Dental Diploma Committee have pleasure in announcing that of the fifty-four candidates who went up for examination at the Royal College of Surgeons, Ireland, on the 7th, 9th, and 10th of the present month, fifty-two passed successfully." The names of forty-nine candidates were printed, most of whom were resident in England. The document concluded by saying, "The next examination will take place on Monday, the 21st prox., and it is requisite that those who wish to present themselves for examination through the Dental Diploma Committee should lose no time in applying to the hon. secretaries, John O'Duffy, L.D.S.R.C.S.I., 5, Gardiner's-row, Dublin, or to Richard Rogers, L.D.S.R.C.S.I., Cheltenham." He also held in his hand a letter which had been sent to gentlemen practising in Scotland, headed "Dental Diploma Committee, chairman, W. H. Witte, L.D.S.R.C.S.I., 10, Oxford-street, Liverpool," &c. "5, Gardiner's-row, Dublin.—Dear Sir,—I enclose you a form in case you wish to obtain the L.D.S.R.C.S.I. The next examination comes off on the 21st of the present month. I sent you yesterday a list of those who had passed at the first examination. Some of the men are nearly sixty years of age.—Yours faithfully, JOHN O'DUFFY, Hon. Sec. P.S.—When the Register is published practitioners will have to appear in the same list with their own footmen and apprentices. Without qualification, Jack will look as good as his master." He did not suppose for a moment that a body like the Royal College of Surgeons in Ireland would sanction the circulation of such documents; still, it seems strange to an outsider that there should be a canvassing committee, having its head-quarters in Dublin, which was sending documents broadcast over the country to show how easily the diploma of the Royal College of Surgeons in Ireland could be obtained. The documents were of such a nature as to throw great discredit upon the diploma of that body. He should be glad to hear from the representative of that body (Mr. Macnamara) a disclaimer of any connexion with the Dental Diploma Committee.

Mr. MACNAMARA said it was almost unnecessary for him to state that his College had no cognisance whatever of the proceedings of the Dental Diploma Committee. As soon as he returned he would consult as to the best steps to be taken to remedy the present state of affairs. He had himself never heard of the documents in question before coming to the Council. After the passing of the late Act the College resolved on instituting a dental examination, and to test the knowledge, without a curriculum, of persons who could produce a certificate of moral character and give evidence that in the past two years they had not attracted business as dentists by advertising or other unbecoming practices. The certificates had to be signed by "two fellows or licentiates of any College of Surgeons, one member of the Dental Diploma Committee, or of the Odontological Society." The "Dental Diploma Committee" was a misprint for "Dental Reform Committee," and how it happened he could not say. Mr. Tomes had been consulted as to the Dental Reform Committee, and had informed them that it consisted of most respectable men. It was felt that the regulation of the College of Surgeons requiring that the candidates should not have advertised since 1859 was too stringent. He had before him a "proof" copy of the regulations proposed to be adopted by the Royal College of Surgeons in Ireland. The Board of Examiners was to consist of three fellows of the College, three registered dentists, and the President or Vice-president of the College, or a member of the Council, who should act as chairman. The Board was to have absolute power to refuse the application of any candidate. The three fellows selected were men of great eminence and ability, as were also the dental examiners. It had been stated that the candidates at the examination could not have shown competent knowledge, because so few had been rejected, but one of the examiners, Mr. Stoker, had told him that he was perfectly astonished at the minute knowledge displayed by them. The printed regulations had not been published, and they were subject to any amendment that might be suggested by the Council. The candidates were required to lodge certificates (1) of having attained twenty-one years of age; (2) of good character and of having refrained from advertising, &c., for two years; (3) of having lodged a fee of ten guineas at the bank. After the 1st of August, 1881, a curriculum would be required.

Dr. STORRAR said that, although Mr. Macnamara had thrown a little more light upon the subject, his explanation was by no means satisfactory. He regarded it as a dire misfortune to the respectable body of dentists already existing, and to the high class of men they hoped to create in a few years, that the College of Surgeons in Ireland should have taken the flagrant step of under-bidding the College of Surgeons of England. The latter body had been at work for twenty years, and during that time had granted about 500 diplomas, an average of 25 in a year; while the former, in less than three months, had granted 52 diplomas out of 54 candidates.

Mr. MACNAMARA inquired how many had been passed without a curriculum.

Dr. STORRAR said it had been made a reproach against some of the Scotch bodies that a southerly wind had blown candidates to Scotland for diplomas; but now an easterly wind seemed to have set in. Why should the candidates have gone over to Ireland? They could be registered without any diploma; but some extraordinary temptation had induced the College to come forward and institute the examination, and to confer diplomas very liberally. There was one apparent irregularity to which he desired to call attention. The regulations required that the board of examiners should contain not less than three registered dentists; but the examinations were conducted before the gentlemen appointed were registered. There was no register under the Act in existence, and they could only have been provisionally registered. He was grateful to Mr. Turner for having brought the matter forward, and hoped that something would be done to guard the Register against the admission of what he must describe as a black list. They should also be very jealous as to the practice of one college under-bidding another. He had just received a memorandum

from Mr. Tomes, from which it appeared that of 400 licentiates in dental surgery of the College of Surgeons of England 187 took the diploma by examination only, and 213 after conforming to a curriculum; of the latter, 31 held additional medical qualifications. In Scotland there were about 200 dental practitioners, and in Ireland about 50.

Dr. A. SMITH said that every one of the candidates passed by the College of Surgeons in Ireland was entitled to go on the Register without any examination at all.

Mr. SIMON said he did not think it was necessary that the Council should trouble itself about the fact that some unauthorised person had been touting for the College of Surgeons of Ireland, and apparently making money by the transaction. The Council could not believe that the Royal College of Surgeons in Ireland would be a party to such a proceeding, or would take part in anything which could be called a Dutch auction. The College, however, had made a great mistake, and unless Mr. Macnamara was in a position to assure the Council that the proceedings would be stopped, the Council would be imperatively obliged to take action in the matter. They had been granting licences to persons who had not passed through a course of study; and he asked whether the Council was prepared to admit licences granted on such terms. If a man was already in practice, that alone entitled him to be on the Register.

Mr. MACNAMARA said that the College of Surgeons in Ireland was most anxious to be in thorough accord with the Council. There was some difficulty as to the interpretation of the Act, but he was quite convinced of the *bona fides* with which the body he represented had acted, and was satisfied with the manner in which the examinations had been conducted.

Dr. WOOD said he should be sorry if the College which he represented had done what the College of Surgeons in Ireland had done. The occurrence of the name of the Dental Diploma Committee in the regulations was certainly a very unpleasant circumstance. Nothing could prove more clearly the necessity of giving to the Executive Committee instructions to obtain information, and that without delay, as to what had occurred in regard to the granting of dental diplomas.

Mr. TURNER asked what steps would be taken with regard to the examination announced to be held on the 21st of next month.

Mr. MACNAMARA said he was not in a position to give any information upon that subject; but he pledged himself that the certificate of the Dental Diploma Committee would not be received.

The motion was then put and carried.

Dr. WOOD moved, "That the Executive Committee be directed to obtain information respecting the education and examination of applicants for registration holding colonial and foreign qualifications under Sections 8, 9, and 10 of the Dentists Act, and to report to the Council at a future meeting." The Executive Committee, he said, would have to examine every application, and see upon what footing it was placed, and then bring before the Council a list of those who, in their opinion, ought to be recognised. That course would be in complete conformity with what was done under the Medical Act.

The motion was seconded by Dr. HUMPHRY, and unanimously adopted.

Dr. WOOD then moved, "That the Executive Committee be directed to carry out generally the provisions of the Dentists Act in accordance with the resolutions agreed to by the Council."

Dr. HUMPHRY seconded the motion.

Mr. SIMON suggested that some general principles should be laid down for the guidance of the Executive Committee in reference to the reception of foreign and colonial qualifications.

Dr. HAUGHTON said he should prefer that the Committee reported to the Council what qualifications they would recommend.

Dr. WOOD said that was exactly the object of the motion.

The motion was then put and carried.

On the motion of Dr. WOOD, seconded by Dr. HUMPHRY, it was resolved "that Mr. Miller, the Registrar of the Medical Council, be appointed General Registrar under the Dentists Act, the appointment to take effect from the date of the passing of the Act."

Mr. TURNER moved the appointment of a committee in conformity with Section 15 of the Dentists Act, for the purpose of erasure from and restoration to the Register.

The motion was seconded by Dr. HUMPHRY, and unanimously adopted; and it was also resolved that the committee should be remunerated at the same rate as the Executive Committee.

The following persons were appointed on the committee—the President, Dr. Pitman, Dr. Quain, and Dr. A. Smith.

Dr. WOOD said that exhausted the subject of the Dentists Act.

The Council then resumed, and the report of the committee was formally received and adopted.

The PRESIDENT then drew attention to a letter from Dr. West, inquiring whether the Medical Council knew anything of the intentions of Government in reference to the education, examination, and registration of midwives, and whether the Council would themselves promote the introduction of a separate Bill for that purpose. He said it was impossible that he should answer Dr. West's question except by a resolution of the Council.

It was resolved that Dr. West be informed that his letter had been read and laid on the table.

THE CONSTITUTION OF THE COUNCIL.

Sir D. CORRIGAN moved a resolution which, after reciting the previous steps taken by the Council on this subject, proposed "That this Council is of opinion that it should not permit further delay to occur in so important a matter, but should proceed at once to the consideration of the constitution of the Council, and what changes may be requisite in accordance with the resolution of the Council of July 3rd, 1878, in fulfilment of its promise to Government, and in sustainment of its own good faith." He said he regretted to be obliged to express his dissatisfaction with the tone of the President's speech on the previous day, in which in a single sentence he had distinctly expressed his condemnation of his (Sir D. Corrigan's) resolution—a very unusual course for a president to take. He also objected to the statement of the President that the Bill of last year had been "reluctantly withdrawn by the Government." His own information was to the effect that the Government were very glad to get out of the hole in which they had been placed, and he had been informed on good authority that one member of the Government, on being asked whether he would resume the consideration of the Bill next year, shook his head and said he would reply in the last sentence of the Lord's Prayer: "Deliver us from evil." The proposal which he was to make was one that he had made twenty years ago. He had not been many months on the Council before he saw that the profession which supported it was not represented upon it. The Council did not represent the working part of the profession. There was no such instance in the whole constitution and history of England as the abuse of the principle of representation and taxation in the Medical Council. He maintained that there ought to be no taxation without representation. At present there was no return whatever made to the profession of the money which was taken from them. The matter had been discussed year after year, but nothing had been done until the report of the Executive Committee on October 17th, when the statement was made to the Council that after three months had elapsed from the time when the Council, in very shame, had passed a resolution that the bulk of the profession ought to be represented, the committee were not prepared with a final report, although they had been requested to report to the next meeting of the Council after their appointment. He did not like to attribute motives, but it was hard to attribute to the committee any other motive than a desire to give the question the go-by. He looked upon the course that had been pursued as an attempt to evade the question altogether; in fact, to humbug the Council completely. He maintained that that was not too strong an expression to use. It had been said that the intervening period had been holiday time; but that was no excuse for not attending to business. Holidays did not usually extend over three months, and that excuse might be safely dismissed. He hoped that the profession would not be so deluded as to allow a Bill to pass which did not contain ample provision for the direct representation of the profession.

Mr. MACNAMARA, in seconding the resolution, said that the honour of eighteen members of the Council, if not of every member of that body, was involved in their taking up the question at the present session. On the 3rd of July last the Council passed a resolution without a dissentient voice pledging themselves to their professional brethren, and, still further, to the Government, that at their next meeting they

would take the question into consideration. It had been suggested that this was not the "next" meeting; but if so, he did not know what meaning was to be attributed to the word. The Council had not been summoned specially to consider the dental question; the summons was a general one, and general business had been transacted at the session; that meeting therefore was logically the "next" meeting of the Council. There were no fixed periods for the meeting of the Council, and the present was as much a general meeting as any that had ever been held. He could not conceive a more fitting opportunity than the present. If the question of the reconstruction of the Council formed part of any Government Bill in the next session, the Council ought at once to take the matter into consideration with a view of affording the Government the necessary information. Government measures were framed in November and December, and it would be too late for the Council to take the matter into consideration at its next meeting. The question was too important to be thrown off their own shoulders and remitted to any committee. It should be discussed in full Council, as it would have to be done eventually. Nothing new would be ascertained by any investigation of a committee. All the possible information was at present available. The matter had been discussed *ad nauseam* until the profession was absolutely sick and tired of it. The British Medical Association had prepared a Bill; a LANCET Bill had also been introduced, and documentary evidence in abundance had been given; so that there was no excuse for any further delay. There could be no extravagance in their sitting a few days longer to discuss the subject, and he hoped that the Council would take it into consideration at once. The expense of a meeting had been already incurred, and he should like to know what the actual cost was before the members took their seats, including travelling expenses.

Dr. A. SMITH.—£404.

Dr. QUAIN.—I may perhaps give a little further information. The cost of each sitting is ten shillings a minute.

Mr. MACNAMARA said that the initial expense had been incurred, and it would be less extravagant to continue the sittings than to adjourn the question.

Mr. TEALE proposed as an amendment, "That a discussion on the constitution of the Medical Council during the present session is premature, inopportune, and not in accord with the spirit of the resolution which was proposed by Sir William Gull and seconded by Mr. Teale, on July 3rd, 1878." The present meeting of the Council, he said, could not have been contemplated by the resolution passed in July. It was not a meeting of the Council in the ordinary sense of the word, but an accidental meeting brought about by circumstances not then foreseen. As one of the authors of the resolution, he maintained that the Council would not be violating its spirit in refusing to enter upon it at the present time. It had been assumed that the Council had committed itself on the question of reconstitution, but that was not the fact, and the result of the consideration of the question might be that the Council would be advised that its constitution could not be advantageously altered. It would be premature to go into the question now, especially as the Council had had new duties devolved upon it, and it would not do to consider simply the narrow point whether it would be sufficient to add a few more members by direct representation. It would be necessary to take a very wide view of the manner in which the duties of the Council could be best fulfilled. They had been suddenly summoned to an unexpected meeting at a critical period of the session of the medical schools, and dragged away from their teaching, and if the meeting were a prolonged one, great inconvenience would be occasioned.

Mr. TURNER seconded the amendment, and contended that it was impossible to discuss the question satisfactorily now that new duties had been imposed upon the Council. He agreed with Mr. Teale that such a discussion would be premature and inopportune.

Dr. HAUGHTON said if Mr. Teale had included in his amendment a proposal that the Council should meet again before the next session of Parliament he should have supported it, but in the absence of any such proposal he felt compelled to vote against it. To postpone the subject to the meeting of the Council in May next would be to tamper gravely with the very serious responsibility laid upon the Council. He offered no opinion as to the reforms, if any, which were needed; he only spoke to the question as to whether it was the duty of the Council to take the subject into consideration at once. He regretted that the matter had been referred to the Executive Committee, and if he had been a member of the Council at the time he should have strongly opposed that course. There were questions that could not be referred to a committee without moral suicide, and the constitution of the Council was one of those questions. A meeting of the Council to consider the subject after the next session of Parliament would be illusory. He had reason to believe that influential members of the Government understood the resolution of July to mean a moral pledge that the advice of the Council should be given before the next meeting of Parliament.

After a few remarks from Sir D. Corrigan, and Mr. Macnamara in reply, the amendment was put and carried, 15 voting in its favour, and 4 against.

Dr. HAUGHTON moved, "That the Council pledge themselves to hold the next meeting referred to in the resolution on the 3rd July before the 1st February, 1879.

Dr. WOOD objected to the Council being pledged to a particular time of meeting, which he thought was a matter that should be left to the discretion of the President, who would carefully watch the tide of events, and would not hesitate to summon the Council when necessary.

Dr. QUAIN also objected to a pledge being given as to the next meeting of the Council, and he indignantly repudiated the idea that there had been an attempt at "humbugging" the profession or shirking the consideration of the question. Parliament had sat till the middle of August, and it was not until it had adjourned that the committee could take the question into consideration. It was hard to say that those who had been busily at work all the year round should not have a holiday, but should meet to frame a report by the middle of October. He denied the Council taxed the medical profession; it was Parliament that taxed it. The lawyers were taxed by having to pay a heavy stamp duty, but the council of legal education was not elected by the persons who paid the taxes.

Dr. HAUGHTON said he would alter the wording of his motion, and propose, "That in the opinion of the Council it is desirable to hold the next meeting before Feb. 1st, 1879."

This motion was then put and negatived, 8 voting for it and 11 against.

A vote of thanks having been passed to the President for his conduct in the chair, the session of the Council closed.

REPORT
OF
The Lancet Sanitary Commission
ON THE
STATE OF THE RIVER THAMES.

No. III.

SINCE the last Report appeared, it has occurred to us to collate in a popular way, for the benefit of the general as well as of the professional reader, certain particulars connected with the analyses recorded last week. Roughly speaking, the waters were composed as follows:—

Water from place of accident (one hour's flood):

Sea-water	15
Sewage	6
River-water	79—100

Water from Northern Sewage Outfall (one hour and a half's flood, sewage not discharging):

Sea-water	16
Sewage	8
River-water	76—100

Water from Southern Outfall (two hours' flood, sewage not discharging):

Sea-water	27
Sewage	9
River-water	64—100

Water taken off Gas Works (two hours and a half's flood):

Sea-water	24
Sewage	8
River-water	68—100

Water from Northern Outfall (ebb tide, sewage discharging):		
Sea-water	24	
Sewage	17	
River-water	59—100	
Water from Gas Works (ebb tide):		
Sea-water	22	
Sewage	7	
River-water	71—100	
Water from place of accident (ebb tide):		
Sea-water	23	
Sewage	7	
River-water	70—100	
Water from Crossness (ebb tide, sewage discharging):		
Sea-water	35	
Sewage	30	
River-water	35—100	

These figures are based upon the following considerations: The water of the German Ocean contains, on an average, 1900 parts of chlorine in 100,000 parts; and the sewage taken from the Crossness reservoir contained 1·876 of free ammonia and 0·154 of albuminoid; total, 2·030 in 100,000, and chlorine 42·6.

Those readers who have read the preceding article on this subject that appeared in our last impression will at once appreciate the force of the remark with which we commenced that report, to the effect that it is as well in inquiries of this kind not to attempt to prove too much. It was evident at the outset that chemistry might help to prove or disprove a great deal. And so we directed our attention to the condition of the water in various parts of the stream—viz., immediately opposite the outfalls, at the spot where the ill-fated vessels collided and one went down, and at a point very near to the works of the Gas Light and Coke Company at Beckton. The analytical and microscopical examinations of these waters show a considerable amount of sewage contamination at and near the outfalls, and the examination of the mud taken from the same sites also assists to prove this fact. The sewage contamination in mid-stream, and over the spot where the ship sank, was not specially marked; and at the time of our visit the smells from the river were not particularly offensive, except in the immediate neighbourhood of the Northern Outfall. We may here briefly recapitulate the condition of things at the time of the accident. It was ebb tide; the sewage from the Northern Outfall, only a very short distance from the place where the vessel sank, was discharging. At, and for some distance around this outfall, there was then, there is every reason to believe, as there is now, a large accumulation of fetid sewage-mud, evolving a very considerable quantity of sewage gases. On the opposite side of the river, there is also at the present time a great quantity of mud; further, the water of the river everywhere, and even in mid-stream, was, and nearly always is, rendered thick and turbid by large quantities of organic, but especially of mineral or earthy matter, including much silica, in the state of grit and sand. The collision took place nearly in mid-stream; the vessel, however, before she went down, drifted somewhat towards the southern shore, but still sank in the channel of the river, where, as we have seen, there is but little reason to believe that any large accumulation of sewage mud could have been present, owing to the action of the tides. Now, although the vessel sank in that spot, of course the people, when immersed in the water, did not remain stationary; some would be drifted downwards by the ebb tide, while others, in their efforts to escape and get ashore, would probably have made their way out of the mid-stream, and have passed towards the mud either on the northern shore, where it was deepest and most offensive, or towards the southern shore. But all, no matter what their position might be, who sank in the water would undoubtedly swallow a portion of that water, laden as it was with sewage, gritty and sandy matter, which would mechanically produce irritation of the throat and spasm of its muscles. But if they reached, from any cause, a deposit of mud and sank in it, this also would occasion their speedy suffocation, and, if not actually immersed in it, their struggles immediately over it would lead to the disengagement of large quantities of sewer gases (and this, according to evidence given at the inquest, did actually occur), which also would probably contribute, in such cases, to a fatal result. It is therefore evident that those who were thrown into the water by the accident to the *Princess Alice* had really much more to contend with than the ordinary cause of drowning—namely, simply sinking in pure water.

The vessel having sunk remained in the current of the river for eight days before being conveyed to the shore, during which time several feet of mud accumulated in the cabins; indeed, this mud had to be searched for dead bodies, some of which were actually found buried in it. Two samples of mud taken from the fore and aft parts of the vessel after it had been brought on shore were found to contain respectively 17·66 per cent. and 16·22 per cent. of organic matter.

It is well in this place to point out a special danger which results from the discharge of sewage into a river such as the Thames. The excreta of certain diseases, as typhoid, always endemic in London, find their way, in many cases, into the sewers, and are by them conveyed into the river by the northern and southern sewage outfalls, so that any persons, either by design or accident, drinking or swallowing this polluted and disease-producing water, incur a great risk of infection thereby.

Before leaving this part of our subject, it is right to record that we have taken much pains in endeavouring to find out the proximate causes of death of those who died after being rescued from the water. According to a statement made at the Mansion House some fortnight ago, these are nine in number, and the causes of death are stated severally as bronchitis, congestion of the lungs, and pneumonia. No particulars have as yet transpired, or are likely now to be forthcoming, leading us to judge that the imbibition of sewage-laden or even of foul water had of itself any specific influence in causing the deaths of those unfortunate persons who were rescued, but who died subsequently. Many others rescued have been, and still are, more or less ill; but it would be unfair, if not sensational, to attribute much of this to the impregnation of the water with sewage and other foreign matter.

The Commission was not, however, instituted solely to prove whether immersion in foul water hastens the ordinary process of death by drowning, or adds to its pains, but to show also whether or not the present state of the Thames is likely to exert any deleterious influence on the sanitary condition of London and its suburbs. We endeavoured to show in the first article how very complex and conflicting the statements are as to the deposition of sewage on the banks and in the channel, since the main-drainage scheme was in operation. We may take it as granted by all interested, that wherever sewage floats so as to pollute the stream materially, to line the banks of that stream, to form deposits in its channel, and under any circumstances (usually of high temperature) to exhale foul odours, it should be classed as a nuisance, and dangerous to the health of the riparian as well as the floating population. But what in this case is its range, and does it attempt, and attempt successfully, to return to the city that has cast it forth?

Since this Commission was instituted, and, indeed since the first report appeared, three very important papers have been sent by the Thames Conservators to the Metropolitan Board of Works. We have been favoured with copies, and find that they are compiled respectively by Captain Calver, R.N., F.R.S. (who has been employed by the Conservancy to report specially on the subject), by Mr. Stephen H. Leach, C.E., engineer, and Captain Burstal, R.N., secretary, to the Conservancy, both men of very extended experience. Nothing, however, appears from Captain James, senior harbour-master. With the aid of these reports, we are enabled to record some definite, and, as it seems to us, incontrovertible facts—(1) as to the recent formation of foul beds of matter in various parts of the river; (2) as to the relative power of the flood and ebb tides; (3) as to the identity of Thames mud and sewage mud; and (4) as to the variety and amount of solid, fluid, and gaseous matters contained in metropolitan sewage.

1. As to the formation of mud-banks. It was found in 1867 that an immense body of mud thoroughly impregnated

with sewage had formed off Crossness, where, six years previously, deep water and a gravel bottom existed. At the same time, wharfingers complained of an accumulation of mud in front of their premises, and deposits were also noticed off Lambeth and in front of St. Thomas's Hospital. The advisers of the Board of Works say that the solids of sewage are light and flocculent, and have no tendency to deposit. But Sir Joseph Bazalgette is aware that such solids have a most unpleasant tendency to deposit, even in some of the large main-drainage sewers, where excellence of construction is all against the occurrence of such precipitation. Can we be surprised that there is a still greater tendency to deposit in the river, with its various bends, depths, tides, and velocities?

2. As to the comparatively superior speed of the flood or the ebb tide, it appears that in 1868 samples of water taken at Greenwich and London Bridge were found to contain many of the constituents of sewage. Sir Joseph Bazalgette also gave, in a paper read at the Institution of Civil Engineers in 1865, the results of observations, the sum of which was that matter suspended in the river works its way nine miles upwards between high-water neap tides and high-water spring tides. And as the same engineer observes "that the water in the lower reaches of the river is very much loaded with mud, *especially upon the flood tide*, Mr. Leach remarks, "How can the ebb water be clearer than flood water unless the latter has left some of its suspended matter behind?" Again, the Woolwich authorities, who were much alarmed in 1857 at the prospect of having the sewage of South London discharged into the river close to them, instanced the case in which the carcass of a horse was observed in the Thames between Greenwich and Woolwich for weeks together, thus assisting to prove a supposition put forth by Mr. Bidder, C.E., in the Barking inquiry in 1869, and now pretty well established, that the sewage discharged from the outfalls is kept flowing backwards and forwards, and is finally delivered into the sea in about a month. There was, finally, the fact that even those outfalls are only two miles and a half from Woolwich, and only five miles below the boundary of a dense population. Instead (according to Captain Calver) of the discharge of this sewage being confined to the first portion of the ebbing tide, it continues from both outfalls from high water of each tide until after half ebb, and there is also a discharge at the Barking outfall continually going on at unlawful hours. (These are facts not disputed by either side.)

3. As to the identity of Thames mud and sewage mud. Neither the chemical nor the general observations made on this point are of much value, because no Thames mud, either within or from some distance beyond the metropolitan main-drainage area can be obtained that is not more or less contaminated with sewage. All the districts below Teddington Lock—viz., Teddington, Twickenham, Isleworth, Brentford, and Chiswick on the north, and Kingston, Ham, Petersham, Richmond, and Barnes on the south side—still discharge their sewage, pure and simple, into the Thames. In spite, too, of the main drainage works, and the efforts of the Port Sanitary Authority, there are still riparian latrines and privies not yet connected with the main drains. We must bear in mind also a continual floating population of several thousand persons between London-bridge and Woolwich, and the constant "droppings" from manure-barges off Lambeth, Chelsea, Southwark, and elsewhere, in process of loading, as well as in their progress down the river. And the docks must be also taken into consideration, making altogether a great amount of distinct sewage pollution that must render any comparison useless for all practical purposes.

4. As to the variety and amount of solid and other matters contained in metropolitan sewage. The results of many observations made by five distinct authorities, including the Rivers Pollution Commission, the Thames Conservators, and the Metropolitan Board of Works, are that, as a dry-weather estimate, the solid contents vary from 23·06 to 55 grains per gallon, or from 64,250 tons to 153,666 tons per annum. (It may be as well to state parenthetically that the minimum of figures here quoted from these five tables of statistics belongs to the Metropolitan Board of Works, and the maximum to the Thames Conservators; and that, as far as we know, all were made quite independently of the others. The second highest on the list was that of the Rivers Pollution Commission.) According to a report compiled in 1876 by Messrs. Reid and Rawlinson, it is calculated that the fæces of 100,000 persons weigh 15,620 lb. daily, which, for 3½ millions of inhabitants, would be 244 tons daily, or about 31·9 grains per gallon of sewage discharge. So that (again quoting from Capt. Calver's report), excluding all detritus washed away during floods, the fæces of the population alone represent a very large amount of "solid sewage contents." Sir Joseph Bazalgette endeavours to account for the accretions of mud that have recently taken place above the outfalls by attributing them to the washing away of the so-called "saltings" or natural boundaries of the channel. But as the same engineer has repeatedly asserted that sewage mud of the specific gravity of 1·550 cannot be moved upwards by the flood stream, how is it possible that a material of the specific gravity of 2·571 (that of these saltings) can be brought up from an island below, some forty miles away from the point of deposit?

The contaminating effect of the fluid portion of the sewage has to be considered with reference to its dilution with both salt and fresh water. Sulphates in tidal water give rise, of course, to the production of sulphuretted hydrogen in large quantities, sewage constituents being present. And before the main-drainage works were commenced, it was proved that the offensiveness of the water was caused chiefly by the putrefaction of the organic matter, dissolved and insoluble, diffused through the water, as the Rivers Pollution Commissioners declared, to so great an extent that, even when acted upon by chemicals, the sewage was not sufficiently purified to be fit for admission into an ordinary running stream. As to the influence of the upland waters, the comparative difference in purity is enormous, if samples be taken, say, in January and June, and compared analytically. As Sir J. Bazalgette lately reported, samples were procured for analysis on January 15th, when the river was more than usually full of fresh water, whereas the water collected for examination at earlier dates was taken about June or July. Captain Calver's report shows, moreover, that the solid and fluid contamination of the Thames surface-water in midsummer (*the chief point of practical importance*) is respectively five times and three times greater, as compared with that found in the winter samples of the Board of Works.

In summarising this last important item of the subject, it is well to quote Mr. Stephen Leach (engineer to the Conservancy), who says that, comparing the proportion of solids in the London sewage with that obtained at Birmingham, it may be calculated that upwards of 4000 cubic yards of solid matter must pass into the Thames daily, "the precipitation of the heavy particles of which is quite enough to account for the formation of shoals," and, we may add, to account for the aggregates also of many foul fluid and gaseous products.

In recapitulating the evils of the existing system we consider that the present mode of discharging the sewage into the Thames has for several, if not many, miles, coated the banks and bed of the river with a mud coating. This coating has, to paraphrase Captain Calver, a considerable amount of "stickability," and, having taken the place of the original sandy and gravelly bottom, goes on increasing, and is, of course, largely impregnated with sewage. The evidence of oxidation of this sewage is as yet very incomplete and unsatisfactory, and it is certain that if it is dependent for oxidation on the atmosphere alone, the process must of necessity be very imperfect. Taking, however, the sewage in solution, and for the moment ignoring the mud, we find a large proportion of the excreta &c. of three and a half millions of people, floating up and down the river between Bugsby's and Erith Reaches, the former being just at the edge of the metropolitan centre of population, the population of Woolwich, however, having the full benefit of the sewage at all times of the tide. The argument put forth by the Metropolitan Board of Works, that all the sewage is carried away by the ebb tide, or, at all events, that it never appears above the outfalls, would result in the Thames below Crossness being a dilution of sewage at the scale of three to one, a state of things that certainly does not exist at the present time. Again, among things not generally known, it was pointed out in the *Builder* at the end of last year, that in tidal rivers, in consequence of the superior specific gravity of salt over fresh water, there is often an under current of the former flowing in a direction contrary to the surface water, and this fact confuses (if it does not confound) the calculations of those who base their conclusions upon the superior speed of the ebb-tide as compared with the flood. The fact also that fish of all kinds have gradually retreated to the mouth and estuary of the river,

that bubbles of gaseous matter arising from decomposition may be seen continually ascending to the surface of the water within the limits above mentioned, the smell often occasioned in warm weather by the paddles of steamboats, as well as much objectionable surface matter on the water patent to both eye and nose, are ordinary evidence of the senses that may be safely relied upon in determining the question of purity.

Having, as we believe, sufficiently demonstrated the sanitary evils that arise from the sewage in, or as distinct from various riparian nuisances found on the banks of, the Thames, it is, of course, natural to seek for the remedy. The Metropolitan Board of Works, as we have many times remarked, have so hedged themselves in with saving clauses in every enactment that might possibly interfere with the dictatorial exercise of their rights and privileges, that, although the Rivers Pollution Act has become law, we have the grand anomaly staring us in the face of the richest and most powerful riparian authority in the kingdom being permitted to pollute the most important commercial stream in the world without let or hindrance.

It appears that the only enactment at all affecting this question is to be found in the 20th and three following sections of the Thames Navigation Act (1870), which directs that the Board shall, at their own expense (i. e., at the cost of the ratepayers of the metropolis), keep the Thames free from banks and obstructions by dredging or other operations. But it appears that these sections have never yet been put in force, nor, as far as we can see, are they ever likely to be. Moreover, this would, after all, be a mere treating of symptoms, and no sort of attempt at a radical cure. In reverting to discussions and reports of some years back, when the merits of Sir W. Bazalgette's scheme were being canvassed, the entire subject was ably treated by that gentleman in a paper read in March, 1865, before the Institution of Civil Engineers. We refer to it for the purpose of calling attention to the objections raised to what is called the "separate system" of drainage. The principle of the system is that the rain (or storm) water is carried into the nearest stream, and the sewage proper dealt with separately. The plan has been adopted at Eton, at Windsor Castle, and elsewhere, usually on a small scale, but, as a rule, with great success. It was argued, however, in Sir W. Bazalgette's paper, that the plan was impracticable, because it involved a double set of drains to each house. This was the only tangible objection made. When the separate system is adopted, it is the usual plan to keep the old drains to take off the storm-water, and calculate the calibre required for the sewage-pipes, allowance being made for a percentage of increase of population, and to utilise the sewage in some way. Full details of the scheme, as now carried out at Eton, may be found in THE LANCET of October 17th, 1874. The principles of the plan are well known to most sanitary engineers, and in spite of the enormous area required to be dealt with, we think the "separate" system in this case worthy of serious consideration. Anyhow, the time has surely arrived when all concerned (and who of those living in or near the metropolis are not?) must be struck of the absurdity and clumsiness of throwing away so many tons of good food-producing material. It is evident to all that the present system was tentative, for Mr. Rawlinson, in speaking at the Institute of Civil Engineers in 1870, said that the Metropolitan Board of Works never, in his opinion, "contemplated the permanence of the present state of things." A somewhat ingenious, and, as far as we know, novel extension of the present works, has been proposed by Captain James, senior harbour master, whose name we have several times quoted in the course of this Report. He proposes to divert the present main drain at Abbey Mills in a due easterly direction so as to lead it eventually into the river Crouch. The estuary of this small stream, is wide, and widens rapidly, and, moreover, the riparian population is very sparse indeed, and is likely to remain so for many years; so that, if any system of utilisation of the sewage were proposed, land could, in all probability, be easily obtained, and the plan tried on an experimental scale at comparatively small cost. It is proposed in conjunction with this plan to carry the southern collection of sewage under the river, and raise it, by pumping, to join the northern section about midway between Abbey Mills and the Crouch river. The only palpable objection likely to be raised would be the deterioration that the sewage might possibly cause to the extensive oyster-beds about the estuary of the river. But it does not appear to us that any good and sufficient reasons have as yet been stated as to the impossibility of procuring land for irrigation or any other variety of utilisation purpose on either bank of the river. It is plain to everyone that both in the neighbourhood of the northern and of the southern outfall a vast acreage exists inhabited only by sheep and oxen, and, as it seems, eminently suited for experimental drainage purposes. But it must be remembered that no system of metropolitan drainage will be complete that does not provide for the exclusion of the sewage of all towns between Teddington Lock and Southend. We have endeavoured, in as brief a space as possible, to lay before our readers the sum and substance of a very large subject, that, according to our belief, will form material for a great deal of discussion in and out of Parliament next session, simply and solely because it influences in a great extent the sanitary condition of several millions of people.

Correspondence.

"Audi alteram partem."

FOREIGN BODIES IN THE AIR-PASSAGES.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to the following paragraph in a lecture in the last number of THE LANCET, by Dr. George Johnson, on "Foreign Bodies in the Air-passages." After describing Mr. Brunel's case, he continues: "In reading the correspondence of the Rev. Sydney Smith, I came across the following amusing reference to this celebrated case. Writing to Mrs. Grote, July, 1843, Sydney Smith says: 'I met Brunel at the Archbishop's (of York), and found him a very sensible man. He said that when he coughed up the piece of gold, the two surgeons, the apothecary, and the physician all joined hands and danced round the room for ten minutes, without taking the least notice of his convulsed and half-strangled state. I admire this very much.' The patient probably somewhat exaggerated the duration of the dance."

Believing in the importance of history being truthful, I venture to ask you to allow me, the only survivor of those who were present when the half-sovereign left Mr. Brunel's right bronchus (it fell into my hand), that Mr. Sydney Smith's account of the dance is not true—not even to the extent that Dr. Johnson thinks it might have been. As to "the convulsed and half-strangled state of the patient," Sir Benjamin Brodie shall be cited. He says in his account of the case, in the 26th volume of the Medico-Chirurgical Transactions:—"No spasm took place in the muscles of the glottis, nor was there any of that inconvenience and distress which had caused no small degree of alarm on the former occasion." I beg to place at the disposal of lecturers a much better story of Mr. Sydney Smith's, because it is a true one. Whilst staying at a country house in some very hot weather, he said, "If this weather continues I shall have to take off my flesh and sit in my bones." "Oh!" said a lady in great alarm, "I hope you won't do that before us!" But, to leave the "comic history" of the case, I beg to call attention to a want of accuracy in describing the case that may lead to more serious consequences.

In a book by a lady of the name of Buckton—being Lectures on Physiology and the Laws of Health—the following paragraph occurs, taken from the eighth edition, and the authoress has had the advantage of having her work revised by two surgeons:—"Many years ago Brunel, the celebrated civil engineer, while playing with his children, pretended to swallow a half-sovereign. Unfortunately the half-sovereign really did drop down his windpipe, and there it remained for two or three weeks. During that time the leading doctors in London tried to take it out in vain. As he was a very clever man, and had plenty of time for reflection, he decided that he would use the following means to extract it:—A plank of wood was brought, on to which he was strapped. He and the plank were turned very quickly upside down; he kept his mouth open, and, as he expected, the quick motion made the half-sovereign fly out of his mouth. In case a child gets anything into his windpipe,

one plan is to turn it with its head down, clap it on the back, and shake it."

To complete the case, I may say that I saw Mr. Brunel in his last illness in 1859, sixteen years after the accident, and examined his body after death. The cause of death was quite unconnected with the accident described. I may add, the half-sovereign is in the museum of St. George's Hospital, Mr. Brunel having cut his initials on it.

I trust to be excused for taking up so much of your space, and

I am, Sir, yours obediently,

Savile-row, Oct. 21st, 1878. CHARLES HAWKINS.

THE DENTISTS ACT AND THE PRESTIGE OF THE PROFESSION.

To the Editor of THE LANCET.

SIR,—In a leader of last Saturday's issue you not unnaturally complain of the danger to the *prestige* of the medical profession which the admission of "a new class of semi-surgeons" to registration by the Medical Council seems to involve. Now, as one of this class of intruders, whose feelings as such cannot be of a very comfortable nature, I beg you will find space in your journal for a suggestion by which our position, when registered by the Medical Council in the Dental Register, would be rendered less unwelcome to fully qualified surgeons, and, at the same time, our feelings of self-respect would be enhanced in our relations with them.

My suggestion is simply that the examination for the dental diploma should be made to involve the same amount of study, and take the same length of time as regards curriculum, as that for a registrable medical or surgical diploma, although, of course, part of the studies of the dental student would be of a different nature, and might not be considered equal in dignity to those of the medical student proper.

This object of equalisation has been attained by the Royal College of Surgeons of England in the curricula demanded by it for the membership of the College and the dental licentiateship. For both, the same preliminary examination has to be passed, the same courses of lectures have to be attended—on anatomy, physiology, surgery, medicine, materia medica, chemistry, &c.; besides the dissections and hospital practice in the wards. Then, instead of such subjects as midwifery, practical surgery, botany, and the like, the dental student has others, such as the anatomy and physiology of the teeth, their surgery and pathology, and others which demand as much time and attention as those subjects, before mentioned, common to both classes of students. In concluding, I hope that the Colleges of Surgeons of Scotland and Ireland will not admit a lower standard of examination for their dental diploma than that which exists for their surgical ones. The Irish College has already given diplomas to twoscore and a half dentists *without* curriculum; it surely will be much more testing when it does institute one.

I heartily agree with you in saying (and I would make the words apply to the dental profession as well) "There is yet one hope for the profession; it may still be possible to maintain a strong controlling power over *all* the examinations." I would emphasise the "all," and have no dental examination less severe than that for a general practitioner; then there would be no reason to fear the results of the new kind of work which the Medical Council has before it.

I am, Sir, yours faithfully,

J. CROOKS MORISON, L.D.S. Eng.

Bath-street, Glasgow, Oct. 15th, 1878.

"MEDICAL ESSAYS FOR LAY READERS."

To the Editor of THE LANCET.

SIR,—In your issue of the 5th inst. your conjecture was quite correct with regard to my sanction not having been given to the entire transference of my paper on "Diarrhœa" to the columns of a provincial journal. I was in no way connected with the proceeding, either directly or indirectly.

The subject of the paper is one fraught with interest to the inhabitants of this town; and the editor of the journal in question, who is Chairman of our Sanitary Committee, has repeatedly given full insertion to the various articles of local interest as they appeared in THE LANCET during the summer months.

The full republication of my paper has appeared in most of the other journals of this town, and, however much I may deprecate such procedure, I think it will be admitted that I cannot be held responsible for the selection by any editor of the subjects which he may deem worthy to bring under the notice of his readers.

I am, Sir, faithfully yours,

WM. JOHNSTON.

Upper Kent-street, Leicester, Oct. 23rd, 1878.

THE ASSOCIATE FELLOWS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

To the Editor of THE LANCET.

SIR,—In your last number is a paragraph giving a list of the British Associate Fellows of the College of Physicians of Philadelphia. The list is complete with the exception of the name of Your obedient servant,

15, Harley-street, W., Oct. 22nd, 1878. ROBERT BARNES.

"THE RADCLIFFE INFIRMARY."

To the Editor of THE LANCET.

SIR,—My attention has been called to some remarks made by you in reference to a statement in the *Oxford Chronicle* a fortnight ago, about an inquest held on a man who died in this infirmary, suffering under some cerebral affection. You have been misled in two important particulars. 1. No post-mortem examination was made. 2. The committee of management never requested the coroner to hold an inquest.

I remain, your obedient servant,

JOHN SLATTER, Treasurer.

Radcliffe Infirmary, October 23rd, 1878.

THE PARIS EXHIBITION.

(From our Paris Correspondent.)

IX.—THE BRITISH SECTION (CONTINUED).

MESSRS. SOUTHALL BROTHERS and BARCLAY, manufacturing chemists of Birmingham, have an extensive exhibit in which they show various articles of interest. Their cod-liver oil marked "A 1" has a very fine appearance, with a beautiful transparent light-yellow colour. Very many specimens of it are exhibited, comparatively with other well-known preparations of cod-liver oil, and with statistics showing its superior freedom from fat. There are also specimens for illustrating the process whereby the manufacturers are able to remove the less digestible solid fats. As a consequence, it is claimed for it that it is lighter and better suited for invalids, and that it is less liable to deposit in winter or in cold climates. It is prepared for the firm of Messrs. Southall and Barclay by their representatives and workmen at Aalesund, in Norway. The firm have also exhibited an interesting collection of the various organic component elements of cod-liver oil. Another article of interest, contained in the neighbouring glass case, is their soluble meat, for which it is claimed that it contains all the fibrine and albumen of meat, as well as its saline and extractive matter, whereas ordinary extracts of meat only contain these latter, but not the other materials necessary for nutrition. It is intended to be used for making soups, but may even be spread on bread. A third division of the exhibit contains new pharmaceutical preparations, such as liq. emetinæ, or a select preparation of ipecacuanha, which does not deposit, and invariably contains the same proportion of emetin. The dose is from five to ten minims as an expectorant, and three to six fluid drachms as an emetic. I must also mention the spirit. amyl. valerian. co., a new and elegant preparation possessing the properties of tincture and infusion of valerian, and the powdered extracts. These are prepared of the same strength as the paste extracts, and are dried and mixed with innocuous powders. Being of uniform consistency they are taken up with ease, and are useful for making pills. The fourth and last division of this

exhibit includes the fine chemicals for use in analysis and research, and guaranteed to be absolutely pure. Numerous samples are shown for the purpose of illustrating the great importance of using pure chemicals; thus, for instance, we note oxalate of ammonia free from potash and soda, acetate of soda free from organic matter and inorganic acids, &c.

Mr. Peter Spence has exhibited one of the most interesting things of this department of the British Section in the form of an immense white tower of pure potash alum, which attracts the attention of all visitors. He has also exhibited his alumino-ferric cake, which is remarkable for its uniform composition in alumina and iron, its richness in alumina, the absence of non-combined acid, and comparative cheapness. It is used for precipitating and decolorising muddy and clayey waters for drinking and manufacturing purposes, also sewage, and the waste waters of manufactories. "The fine silicous matter," it is stated, "contained in the alumino-ferric is found to assist rather than retard the precipitation. It is worthy of note that precipitation by the alumino-ferric does not leave any chemicals in solution. The lime found in the water (or added when necessary) uniting with the acid of the sulphate becomes harmless sulphate of lime, and, at the same time, throws down the whole of the alumina and iron present.

Messrs. David Storer and Sons have exhibited an extensive series of articles for house and cottage painting, of paints and colours &c., prepared in their manufactories of Glasgow and London. They have also very fine samples of the oils and grease which they manufacture for railway purposes.

The Tyne Alkali Company, of Newcastle-on-Tyne, have a remarkable exhibit of soda ash, of chlorate of potash in crystals and powder, of native carbonate of barytes, and of permanent or satin-white from the carbonate of barytes. Their specimens look very fine, and show both excellence of manufacture and purity of quality.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 17th:—

Baddeley, Charles Edward, Newport, Salop.
Noble, Henry Brewin, Loughborough.
Outhwaite, William, Lichfield.
Warrillow, Edward Sadler, Headcorn, Kent.

The following gentlemen on the same day passed the Primary Professional Examination:—

Theodore F. P. Adolphus, King's College; Fredk. Nicholas Heygate, St. Thomas's Hospital; Thomas William Scale, Middlesex Hospital; Robert Owen, Charing-cross Hospital; John Smith, Westminster Hospital.

QUEEN'S UNIVERSITY IN IRELAND.—On the 11th inst. the diploma in Midwifery was conferred upon the following:—

Thomas Gelston Atkins, J. Fritz Beck, Alfred C. Bennett, John Thos. Collier, Daniel Fegan, Robert Evans Hadden, Richard Jennings, Alfred H. Keogh, Charles Kevin, Edward Little, Stephen Little, John M'Kinley, Lysander Maybury, Thos. O'Sullivan, C. Yelverton Pearson, William Smyth, John F. Tuohy, William Whitford.

THE Governors of the Sunderland Infirmary have, for some months past, had it in contemplation to establish a Provident Dispensary, and at a special meeting held last week, it was finally determined to do so.

PROF. ERASMUS WILSON, F.R.S., has handed to Mr. John Dixon, C.E., a cheque for £10,000, in redemption of his munificent pledge to pay him that sum on the erection of Cleopatra's Needle on the banks of the Thames.

THE Reading Guardians have increased the salary of Mr. Oded Lousley, medical officer for the St. Giles district, from £125 to £150 per annum. The Barnsley Guardians have increased the salary of Mr. Stawman, medical officer for the east district, from £50 to £70 per annum.

THE Stow Rural Sanitary Authority, Suffolk, have hitherto appointed the Poor-law medical officers as medical officers of health for their respective districts; but the Local Government Board have lately insisted upon the appointment of one medical officer of health for the whole of the district, with which the Authority have now complied.

DR. J. HURLEY has received a Government gratuity of £4 14s. for efficient vaccination in the Withern District, Louth Union.

BEQUESTS ETC. TO MEDICAL CHARITIES.—The Altrincham Hospital has just received a legacy of £500 from the late Miss Daine, of Ashton-upon-Mersey.—Mr. Richard Foster has given £100 to the North-Eastern Hospital for Children, Hackney-road.

COLLEGE OF PHYSICIANS IN IRELAND.—At a meeting of the College held on the 18th inst. the following were elected office-bearers for the ensuing year:—President: Henry Head. Vice-President: James Little. Censors: Fleetwood Churchill, George F. Duffey, James Little, Stephen Miles MacSwiney. Registrar: J. Magee Finny. Treasurer: Aquilla Smith. Examiners in Midwifery: Edward Burrowes Sinclair, Arthur Vernon Macan. Professor of Medical Jurisprudence: Robert Travers.

Medical Appointments.

ALLEN, A. H., F.C.S., has been appointed Public Analyst for the Borough of Barnsley, at 12s. 6d. per analysis, 21s. for each water report for sanitary purposes, and 21s. for each attendance in Court, vice Baker, deceased.

ASHBY, A., M.B., F.R.C.S.E., has been appointed Public Analyst for the Borough of Grantham, at £10 per annum, stationery, &c.; 10s. 6d. per analysis; 21s. for each quarterly report; and 21s. per day when required to give evidence.

BAYNES, J., F.C.S., F.R.M.S., has been appointed Public Analyst for the Borough of Hanley, at £25 per annum and fees, vice Scott, resigned.

BLAND, A. R. H., M.D., C.M., & L.M., has been reappointed House-Physician to the Royal Hospital for Diseases of the Chest, City-road.

BRANNIGAN, R. A., M.D., C.M., has been appointed an Assistant Medical Officer to the Liverpool Workhouse, Brownlow-hill, vice Irvine, resigned.

BRIGHT, J. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Glastonbury Friendly Society, vice Burgess, deceased.

CHRISTIE, J., M.D., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Dundee, vice Saunders, resigned.

DAVIES, B., M.D., F.R.C.S.E., has been reappointed Medical Officer of Health for the Newport, Mon., Urban Sanitary District, at £100 per annum for five years, and for the Port Sanitary District, at £50 for one year.

GABB, C. B., M.R.C.S., L.R.C.P.Ed., has been appointed a House-Surgeon to St. Bartholomew's Hospital, vice Moullin.

GARSON, J. G., M.D., L.R.C.S.Ed., has been appointed Anatomical Assistant to the Royal College of Surgeons, England, vice Pye, resigned.

GRAHAM, C. R., M.R.C.S.E., L.R.C.P.Ed., has been appointed Senior House-Surgeon to the Royal Berks Hospital, Reading, vice Carlyon, resigned.

GRAY, Mr. T., of Dumfries, has been appointed a House-Surgeon to the Royal Maternity Hospital, Edinburgh, vice Adam, whose appointment has expired.

HAMILTON, J., M.B., has been appointed an Assistant Medical Officer to the Liverpool Workhouse, Brownlow-hill, vice Clarke, resigned.

HANCOX, W. M., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bilston Urban Sanitary District, Staffordshire, at £50 for one year.

HOUGH, C. H., M.R.C.S., has been appointed House-Surgeon to the Derbyshire General Infirmary, vice Highton, resigned.

HUGHES, W. H., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for Ashton-under-Lyne, vice Galt, deceased.

JOHNSTON, J. S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Surgeon to the Midland Railway Friendly Society, Sheffield, vice Richardson, resigned.

LANGLEY, P. W. I., M.D., C.M., M.R.C.S.E., has been appointed an Assistant House-Surgeon to the South Dispensary, Liverpool.

LEGAT, A. E., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Ford and Hylton District of the Sunderland Union, vice Horsfield, resigned.

LUCAS, R. C., B.S., F.R.C.S., has been appointed Surgeon to the Metropolitan Life Assurance Society, vice Hilton, deceased.

MCWATT, Mr. J., of Dunse, has been appointed a House-Surgeon to the Royal Maternity Hospital, Edinburgh, vice Murray, whose appointment has expired.

MARR, J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Resident Medical Officer to the Scarborough Friendly Societies' Medical Association, at £200 per annum, with residence &c.

MATTHEW, C. M., M.B., C.M., has been appointed Medical Officer to the Westminster Union School at Tooting, vice Wright, resigned.

O'BRIEN, D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Lyme Regis District of the Axminster Union, at £58 10s. per annum and fees, vice Wollaston, deceased.

RAJAONAH, Mr., L.R.C.P., L.R.C.S., has been appointed Assistant House-Surgeon to the Darlington Hospital.

RICHARDSON, W., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., has been re-appointed Medical Officer and Public Vaccinator for the Hendred District of the Wantage Union, and his salary increased from £40 to £50 per annum.

ROBINSON, Major K., M.D., M.R.C.S.E., has been reappointed Medical Officer of Health for the Ashford East, Ashford West, Bleau, Bridge, Dover, Eastry, Elham, and Isle of Thanet Rural, and the Dover, Herne Bay, and Hythe Urban, Sanitary Districts, at £900 per annum.

SAER, D. P., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the Pembroke Urban Sanitary District, at £50 for one year.

SEAGRAVE, C., L.K.Q.C.P.I., L.R.C.S.I., & L.M., has been appointed Resident Assistant Medical Officer to the Bolton Union Workhouse, Fishpool, at £150 per annum, furnished apartments, &c., vice Latour, resigned.

SIMPSON, Professor, will be Medical Officer on duty at the Royal Maternity Hospital, Edinburgh, for the quarter commencing Nov. 1st, in succession to Dr. Croom.

SINCOCK, J. B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 2 District of the Bridgewater Union, vice Kemmis, resigned.

WADDELL, L. A., M.B., C.M., has been appointed a House-Surgeon to the Western Infirmary, Glasgow.

WILLIAMS, A. G., M.R.C.S.E., has been appointed Resident House-Surgeon to the Brixton, Streatham, and Herne-hill Dispensary, vice Plant, resigned.

WILLIAMS, W., M.D., C.M., M.R.C.P.L., has been appointed a Physician to the Royal Southern Hospital, Liverpool.

Births, Marriages, and Deaths.

BIRTHS.

ADAMS.—On the 18th inst., at Barnes, Surrey, the wife of James Adams, M.D., of a daughter.

BYRNE.—On the 12th inst., at Derry, the wife of Joseph Byrne, L.K.Q.C.P.I., of a son.

DODS.—On the 11th inst., at Rannoch House, Tranent, the wife of James Dods, L.R.C.P.Ed., of a daughter.

GOODING.—On the 17th inst., at Alconbury, Cheltenham, the wife of John Callender Gooding, M.D., of a son.

MACDONALD.—On the 21st inst., at Gowan-park, Cupar, Fife, the wife of Keith Norman Macdonald, Esq., M.D., of a daughter.

MOINET.—On the 17th inst., at Alva-street, Edinburgh, the wife of Francis W. Moinet, M.D., of a daughter.

TAYLOR.—On the 20th inst., at Champion-park, Denmark-hill, the wife of William Bramly Taylor, of a son.

WEATHERHEAD.—On the 18th inst., at Kew-bridge-road, the wife of John F. Weatherhead, M.R.C.S.E., of a son.

MARRIAGES.

CASE—LAWSON.—On the 3rd inst., at Leeds, Henry Case, M.R.C.S.E., L.S.A.L., Medical Superintendent of the Metropolitan Asylum, Leavesden, to Matilda, daughter of John Lawson, Esq., of The Manor, Bramhope, Yorkshire.

FURLEY—WARDE.—On the 22nd inst., at St. Mary's Parish Church, Twickenham, London, William Grant Furley, M.B., L.R.C.P.Ed., L.R.C.S.Ed., of Tranent, Haddingtonshire, to Alberta Mary, eldest daughter of Albert T. Warde, Esq., of Shawhill, Warwickshire, and Newton Hall, Yorkshire. No cards.

KELLY—LANCASTER.—On the 22nd inst., at St. Mary's, Lanark, N.B., by the Very Rev. J. Carpenter, C.M., assisted by the Rev. C. McEnroe, C.M., Edward Henry Kelly, Esq., M.D., to Eliza Ann, eldest daughter of the late J. Lancaster, Esq., of Nitshill, near Glasgow.

LAMSON—JOHN.—On the 14th inst., at Holy Trinity Church, Ventnor, by the Rev. W. O. Lamson, M.A., late of Paris (father of the bridegroom), assisted by the Rev. A. L. B. Peile, M.A., Vicar of Holy Trinity, and by the Rev. H. T. Maddock, M.A., Rector of Bonchurch, George Henry Lamson, Esq., M.D., L.R.C.P.Ed., L.R.C.S.Ed., of Rotherfield, Sussex, to Kate George, eldest daughter of the late William John, Esq., of Swansea.

DEATHS.

ADAMS.—On the 16th inst., at Stoke Villa, Honor Oak, Arthur Adams, F.R.C.S., Fleet Surgeon, R.N., aged 58.

BUTLER.—On the 14th inst., at Hampton, Middlesex, George Henry Butler, L.S.A.L., aged 70.

GRANGER.—On the 17th inst., at Skipton, Yorkshire, Henry Homer Granger, M.R.C.S.E., aged 64.

HULL.—On the 17th inst., at Holland-road, Kensington, George Hull, M.D., F.R.C.S.Ed., F.R.C.P.Ed., aged 86.

JOHNSON.—On the 19th inst., at York-road, Lambeth, Henry Johnson, M.R.C.S.E., aged 58.

ROBERTSON.—On the 16th inst., at St. Lawrence, Kent, John Robertson, M.R.C.P.L., aged 78.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. F. Esmarch: The Surgeon's Handbook on the Treatment of Wounded in War.
J. D. Morell: Philosophical Fragments.
Dr. J. Drysdale: The Germ Theories of Infectious Diseases.
Dr. Bryden: Vital Statistics of India.
Transactions of the Massachusetts Medico-Legal Society. Vol. I. No. I.
Lennox Browne: Forms for taking Throat Cases.
F. Jenkin: Health Houses.
Dr. R. Willis: William Harvey.
F. J. Gant: The Science and Practice of Surgery. Vols. I. & II.
Dr. J. Wallace on Utero-Pelvic Disease.
C. J. Kingzett on Animal Chemistry.
Wyld's Map of Afghanistan.
The Canada Medical and Surgical Journal. October.

Notes, Short Comments, and Answers to Correspondents.

MEDICAL FEES AT INQUESTS.

THERE is a practice springing up among coroners with regard to the fees of medical witnesses which it is most desirable to check. Hitherto economy has taken the form of trying to obtain an opinion without a post-mortem examination. Now it is striving to make the payment of any fee dependent on giving an opinion as to the cause of death, the nature of which is to be communicated to the coroner before the inquest, in order that he may determine whether it is worth paying for! This is an ingenious device; but we trust it will not be successful. Dr. Gimlette, the house-physician at St. Thomas's Hospital, has been assailed in this way by Mr. Carter, the coroner. The "qualified opinion" given in a recent case did not seem of sufficient value to procure at the usual rate, so the coroner rejected it and refused the fee. Medical men must be careful to decline giving "qualified opinions" in future; and it will be well if the Lord Chief Justice, as chief coroner of England, or the Home Secretary, can find opportunity to express a judgment on this new and curious device.

Mr. T. Sproull will find all the information desired in the Students' Number of THE LANCET, published on September 14th, 1878.

FRACTURE OF CORONOID PROCESS, WITH DISLOCATION OF ULNA BACKWARDS,

To the Editor of THE LANCET.

SIR,—As the above accident is set down by authorities as one of great rarity, perhaps the following case may be worth a notice, as all the symptoms strongly pointed to the existence of this injury.

A man, somewhat under the influence of drink, was admitted to the receiving-room of the Royal Free Hospital, stating he had injured his elbow. He had slipped down, his elbow being caught between his hip or pelvis and the curb-stone. On inspecting the two arms, they seemed quite natural, except that on the inner side of the bend of the elbow in the injured arm there was a swelling, looking very like an effusion of blood. On asking him to flex and extend the forearm, he did so with evident pain, flexion being carried to a little beyond a right angle. He could pronate and supinate slowly, but well. On examining the arm, I found the bony points about the elbow in their normal relations, and perfectly sound. The head of the radius rotated in its place. No crepitus could be detected by any movements over the seat of the swelling, which corresponded in position to the coronoid process. The brachial artery was intact, the radial pulsating naturally. The biceps tendon acted well. All this time there had been no dislocation, and I was puzzled to know the nature of the injury; but the patient, who was holding his arm with the other hand, suddenly let it fall, and immediately the ulna was dislocated backwards. I examined it again, and found the head of the radius still rotated in its place, and had not been displaced with the ulna. I easily reduced it by extension and flexion, and as easily reproduced the displacement by pressing the ulna backwards; but still the head of the radius retained its place. A senior colleague confirmed these observations. It was put up on an angular splint, and the next day there was so much swelling as to preclude any more examination; but still there seems no doubt that the injury was as I had diagnosed. In three weeks the splint was removed, and some movement attempted. I found that complete flexion was prevented by a rather indurated swelling over the situation of the coronoid process, and full extension was checked by a band; but in the course of a few weeks he regained almost complete use of the arm.

I am, Sir, yours &c.,
J. SCOTT BATTAMS, M.R.C.S.

Royal Free Hospital, Sept. 17th, 1878.

HOME FOR PARALYSED GENTLEPEOPLE.

THE proposition is a very reasonable one; and if our correspondent could put it into practical form in a letter of moderate length, we should be inclined to give it publicity.

E. M. B.—Address Dr. Liveing, Cambridge, who will give all necessary information.

Dr. W. R. Thomas.—The paper will appear very shortly.

THE OLD AND NEW LINCOLN COUNTY HOSPITALS.

To the Editor of THE LANCET.

SIR,—The writer of the article in THE LANCET for October 12th seems to have misapprehended some of the statements contained in my "Account of the Old and New Lincoln County Hospitals." I shall, therefore, feel obliged if you will kindly permit me to set him right on one or two points.

The writer evidently labours under the impression that the old hospital has been pulled down, and has been replaced by the new one; but this is not the case. The old hospital, though denuded of its inmates, is still standing, and, with the surrounding grounds, will shortly be offered for sale. The new hospital occupies a fresh, and, as many believe, an altogether better site on the outskirts of the town. From 1769 to 1771 some buildings situated below the hill, which had been previously used for malting purposes, served as a temporary hospital; these are confused with the substantial building on the summit of the hill which has just been emptied. Lastly, the report upon the old hospital drawn up by Dr. Bristowe, which at the time of its appearance exercised an important influence upon the opinions of the Governors, is not alluded to.

I am, Sir, yours faithfully,
T. SIMPSON.

Lincoln, October 22nd, 1878.

A SEVENTEENTH CENTURY SURGEON.

PROFESSOR SCALZI, of Rome, head Surgeon to the Consolazione Hospital, has presented that time-honoured institution with the great medal which the Medical Society of Nürnberg about the middle of the seventeenth century caused to be struck in honour of the Roman anatomist, Antonio Pacchioni, himself a professor in the Spedale della Consolazione. The medal, very fine as a work of art, has the additional merit of rarity—the only other specimen in existence being that in the Royal Museum of Berlin. The one now presented to the Consolazione Hospital belonged to Professor Carlo Minati, of Siena, who made it over to Professor Scalzi. It bears on the obverse side the likeness of the illustrious Roman anatomist, with the legend, "Antonius Pacchionus Medicus et Anatomicus Romanus." On the reverse side there is a winged *genius*, which with the right hand raises the funeral shroud of a corpse, and with the left points to the temple of glory, on which is inscribed, "Non inglorious ibis." Another *genius* proffers a lens to the young anatomist, who is standing beside the corpse—a proof that microscopic observations on the dead body were practised in Rome about the middle of the seventeenth century.

Dry Soil's first communication has been unfortunately mislaid. If he will repeat his questions, we will endeavour to answer them.

SALICINE AND SALICYLATE OF SODA IN ACUTE RHEUMATISM.

To the Editor of THE LANCET.

SIR,—Much has been written concerning the use of salicine in some form or other in this disease. Being a comparatively new remedy, it is well to record experience of it. There are yet some who do not believe in its efficacy. I was myself sceptical at first as to its effects, and had a great belief in bicarbonate of potash, which I was not willing to give up, having often found it serviceable. The first time that I noticed the effects of salicine was when in attendance upon a friend, a medical man, who had had several severe attacks of rheumatic fever, and who was at this time undergoing treatment by alkalies. On the suggestion of his wife, he tried salicine, and with benefit. He took at first ten-grain doses of it, which, on consultation with me, he increased to fifteen grains. He derived benefit from it, and gradually recovered, and now when he feels any symptoms of a return of the malady he takes a dose of his salicine, which relieves him.

A few months ago a man came under my care, suffering from a very sharp attack of acute rheumatism, who was being treated by alkalies, the gentleman under whose care he was not believing in salicine. I gave him ten-grain doses of salicylate of soda every hour, which acted like a charm. In twenty-four hours he was free from pain, but very prostrate, and in forty-eight hours he was sitting up. Next day he was down stairs. Unfortunately he went out and had a relapse, the pain and swelling returning extremely rapidly; but on a resumption of the remedy, which was stopped when the symptoms disappeared, it produced the same results as before. He was down stairs in a couple of days.

In this case I did not give salicine, but in the two following, which I mention, I did so with the intention of noting its effect, and, though it certainly gave relief, I found it very much inferior to the salicylate of soda.

In one case, that of a domestic servant, it produced relief after every dose, but did not get rid of the disease, the fever, swelling, and pain of the joints still persisting, though in a modified form. This was continued for a week, when the salicylate of soda was given, and it immediately relieved all the symptoms, and on the third day from taking it she was allowed to get up. In fact, she was pronounced well, and rapidly regained strength.

In another case the same course was pursued, except that the salicine was only employed for two days, when, finding that it relieved the symptoms only partially, as in the last case, I immediately substituted for it salicylate of soda, which acted as in the other cases, giving immediate and thorough relief. On the fourth or fifth day after taking the remedy it was discontinued, and a relapse followed; but on resuming the medicine it soon disappeared again.

From careful study of a few cases I have found that salicine will *relieve* acute rheumatism, modifying the disease, causing it to run a less severe course, and probably in mild cases cutting it short; but that salicylate of soda is a specific. One thing that has struck me forcibly is the fact that on the sudden withdrawal of the salt, on the abatement of the symptoms, a relapse followed in a day or two, and there is no doubt it ought not to be suddenly cut off, but continued after the symptoms have subsided for days, though in diminished and less frequent doses.

That salicylate of soda may be useful in long-standing rheumatism is certain. I am at the present time giving it in the case of a man who for years has been unable to follow any employment, but who, though he has only taken it a few days, has experienced such relief from it as to be able to use his hands and legs better than he has done for years. There can be no room to doubt that in this salt we have a certain remedy for a disease that has often been a source of great anxiety to the medical man, as well as dread and suffering to the patient.

I am, Sir, your obedient servant,

Luton, October 15th, 1878. D. THOMSON.

Juvenis.—A coroner can instruct a house-surgeon to make a post-mortem examination; but by so doing he renders himself liable to pay the fee, if the examination is not made by the house-surgeon in the ordinary discharge of duty as officer of the institution. Payment should be claimed.

Mr. A. Andrew should address the colonel of the regiment at headquarters.

Dr. E. Symes Thompson.—Thanks.

FOUL CISTERNS.

ATTENTION is again called to the peril of blood-poisoning which lies in water-supply from foul cisterns. The evil to which we refer is fully recognised, and has been urged as one of the most powerful arguments in favour of the system of constant supply, in which no cisterns are used; but the dangers of the dirty tank are not adequately perceived or provided against. Years ago there was a loud outcry against lead reservoirs for drinking-water, and that metal fell into disuse, being replaced by zinc. It is to be regretted that the collateral evil of dirt-accumulation was not at the same time remedied. Even when there is some sort of covering to the cistern, the rain-water penetrates after washing the roof and attic gullies; and if this contingency is avoided, there is still the uncleansed deposit of the drinking-water itself treasured in the cistern, and this works mischief. Cisterns should be cleaned frequently, and it must be desired that the day may not be far distant when they will be abandoned as useless apparatus.

IMPERIAL AND COLONIAL REGISTRATION.

To the Editor of THE LANCET.

SIR,—The Ontario Medical Act is causing considerable inconvenience to registered medical practitioners (British) coming here, and I doubt not also to colonial graduates going to Britain, and it is with the view of informing those meditating making Canada their home that I beg room in your valuable columns to state my case, and give extracts of correspondence I have had with the President of the College of Physicians and Surgeons of Ontario on the subject.

On the 2nd ult. I determined locating here, and with that view wrote to the Registrar for particulars regarding registration under this Act, again on the 12th, without getting a reply; so on the 23rd I went to Toronto, and was informed that on the 4th inst. there would be a meeting of Council, and my case with several other similar cases would be brought up at that diet. However, on the 2nd inst. I was waited on by a private detective, and taken to Stratford to plead guilty to being an "unqualified practitioner within the meaning of the Act," and ordered to pay a fine of $25, in consequence of which I put myself in communication with the President, from whom I received the following:—

[COPY.]

"College of Physicians and Surgeons, Ontario,
Toronto, 4th September, 1878.

"By virtue of the authority vested in me by the Council of the College of Physicians and Surgeons of Ontario, and in accordance with Sect. 31. of the Ontario Medical Act (Rev. Stat.), I hereby direct that all proceedings against Dr. James Skirving, of the village of Tavistock, be stayed until further instructions are issued by me. In testimony whereof the seal of the College is hereto appended.

(Signed) "D. CAMPBELL, M.D.,
(Seal) "President, College Phys. and Surg., Ont."

And in a letter accompanying of same date he says:—

..... "I am sorry that our relations with the Medical Council of Great Britain do not enable us to put your name at once upon our Register; but I hope that arrangements will be made before long which will lead to perfect reciprocity between Ontario and the mother country.

"Although the registration in Great Britain is held to be valid throughout those colonies which have not a separate legislating body of their own, it is the opinion of the highest legal authorities in this Province that, by the *Confederation Act, the several Legislatures of the Provinces constituting the Dominion of Canada have the exclusive power of declaring who shall, or shall not, practise medicine within their limits, and that the Imperial Parliament can only withdraw that power by the repeal of that portion of the Confederation Act conceding this power.* ..... In your case it does not appear that you have ever studied in Ontario, consequently our Council will be disposed to take the most favourable view of your claims to registration; but I cannot take upon myself to order your admission without the assent of the Council. All that I can do I have done, and that is to enclose an order staying proceedings ..... and I trust that matters will be so arranged with the Council in Great Britain as to put an end to the unpleasant state of affairs now existing."

Again on the 7th inst. the President writes:—

..... "You will see from these notes what we are striving to maintain ourselves, and to induce all similarly constituted bodies to adopt—namely, the '*single portal of entrance to the profession.*' The College of Physicians and Surgeons of Quebec registers *graduates* from all recognised Universities without additional examination; and I have been called upon within the last few weeks officially to notify them that so long as they persist in so doing it will be out of the question for them to expect any reciprocity of registration with us. ..... In England, as you are aware, the profession at large has long been clamouring to have such a single portal established; but the "vested rights" of some Corporations (who have too great a representation in the Council relatively to practitioners throughout the country, who, in fact, are not represented there at all) will continue, we fear, to stand in the way of this much-desired result. ..... Our Board has no interest whatever, as all the examining bodies in Britain must have, in making the entrance to the profession easy. We are not in competition with any other licensing body, and you will notice that, as no part of the examination fees is returned to rejected candidates, the *pecuniary* interest of the College, if we could for a moment take such a matter into consideration, is strongly in favour of having as many rejections as possible. We, therefore, consider that our examinations are as thorough and impartial as any medical examinations in the world."

As, however, many "eclectics" and parties holding bogus diplomas, who were in practice before the Act came into force, were of necessity admitted to registration by virtue thereof, those only who are registered by examination should receive reciprocal registration, and that on their showing that the standard of education is equal, and that the teachers were recognised professors of their various branches.

That this question will be amicably and equitably settled is the wish of,

Your obedient servant,

JAMES SKIRVING, L.F.P.S.G. & L.M.

Tavistock, Ontario, Canada, Sept. 30th, 1878.

QUACKISH PUBLICATIONS.

UNFORTUNATELY, although the bulk of the contemptible pamphlets circulated among the public, with the view of attracting patients by the promise of cure, are issued by unqualified quacks, there are some that deserve to be classed as "quackish" though purporting to come from the pens of men holding diplomas and duly registered. This is a most regrettable and humiliating circumstance, and we have no hesitation in expressing a strong opinion that they should all be tarred with the same brush. It is high time that a short Act of Parliament was passed, rendering the circulation of such pestilent and demoralising literature as relates to the treatment of what are known as "nervous diseases" and spermatorrhœa an offence to be visited with swift penalties. The interests involved in this matter are very grave, and, we believe, they have been too long neglected. It cannot be right that dissertations on the nature and treatment of diseases which for the most part arise from vicious courses should be cast in the way of young persons. This, however, is what must be—and the mischief wrought is incalculable—so long as the circulation of these pernicious works is permitted. The law should be made to include publications of the nature to which we allude among the worst specimens of impure literature.

Mr. George Elder's Notes shall appear in an early number.

MEDICAL PRACTICE IN SOUTH AFRICA.

To the Editor of THE LANCET.

SIR,—Having practised for over twelve months in South Africa, my remarks may not be uninteresting to young medical men who contemplate emigrating to that country.

With regard to obtaining a practice, I wish to state distinctly that I consider it much easier than to obtain one in England. In South Africa there is no such thing as purchasing a practice; on the contrary, the residents of a district frequently guarantee a fixed sum of, say, £500 to £700 a year to a medical man who will reside amongst them; visiting and midwifery fees are both higher than in England, and I have known several instances of medical men accumulating money by practice and returning to Europe. I myself had no difficulty in obtaining an appointment as surgeon to Government railway employés, with salary and allowances equal to £500 a year.

The above are the advantages of practice in South Africa, and now for the disadvantages. I wish to be understood that throughout I speak of up-country practice, as the towns, especially the coast towns, are well supplied with medical men.

Society is very limited, educated persons being very scarce, so much so that the district surgeon not unfrequently finds himself the only educated man in the district, and as a consequence almost every district surgeon is made a justice of the peace, and invested with limited magisterial powers. In many districts Dutch is the only language spoken, and this is a difficulty the Englishman must get over by learning the somewhat rude Dutch *patois* spoken at the Cape. In other districts Dutch and English are spoken side by side; but I believe it is only a matter of time until the Dutch language will yield to its more powerful opponent. I have been frequently consulted by Boers or farmers who could not speak one word of English, and I have been obliged to prescribe for them through an interpreter. All kinds of qualifications are recognised by law at the Cape, and a great number of the medical men there are Germans &c., holding Dutch and German qualifications.

The country is very sparsely peopled, and generally speaking has a barren appearance. The journeys are long. I have frequently travelled from eighteen to fifty miles in one day to visit a patient, and on several occasions I have travelled over fifty miles to visit a patient, making a two days' journey of it. The roads are extremely bad, rarely repaired, with an absence of bridges, railways, telegraphs, newspapers; and the surroundings of civilised life generally are not to be seen as in England. The coloured population is numerous. Fowl-eggs and fresh vegetables are expensive and difficult to obtain; a head of cabbage has sold for as much as 7s. 6d. at the diamond fields.

As young medical men suffering from phthisis are frequently advised to go to the Cape to practise, I wish to say emphatically that, as the work is hard and rough, I consider it entirely unsuitable for one labouring under what is essentially a disease of debility. If, however, the disease be arrested, and strength and energy regained in a fair degree, then the out-door life up-country in a magnificent climate will be the very best thing.

District surgeoncies are frequently vacant, but the best of them are usually picked up at once. The appointment is worth about £100 a year. Many district surgeoncies are advertised month after month in the Government *Gazette*; such are generally almost worthless. Griqualand East was advertised for seven or eight months at £200 a year, and could not find an applicant, as private practice was almost *nil* in that remote district. The Orange Free State offers some openings; but it should be remembered that Dutch is much more spoken in that republic than in Cape Colony, and that each medical man must pay £20 a year licence to enable him to recover fees at law.

The climate of South Africa is well suited for chronic chest diseases, as it is mild and equable, without being too relaxing, and the number of days upon which rain falls is comparatively few. I have visited Madeira, St. Helena, South America, and the South of Europe, and consider the climate of South Africa to be superior to any of them.

I am, Sir, yours &c.,

October 10th, 1878. J. G. THORNLEY, M.D., F.G.S., &c.

Mr. W. P. Smith, (Devonport.)—The reply was, curiously enough, given, in answer to another correspondent, on the same page as that on which the note appeared.

Mr. Wm. Daly Moore.—Please give the dates.

Dr. Bode is thanked.

M. M. P.—Notice should be given to the relieving officer of the district, although the patient is *not* in the receipt of parochial relief. The relieving officer will manage the removal to an asylum, and if the medical attendant is called in he will receive a fee.

Mr. R. J. Glissan.—The engagement was too indirect to be relied on ground for a legal claim.

THE ETHICS OF SALES OF MEDICAL PRACTICES.

To the Editor of THE LANCET.

SIR,—With reference to your remarks on the "Ethics of Medical Practice," published in THE LANCET of October 5th, I regret having to contribute another letter of complaint on the same subject, and I do so more especially to ask your opinion on the legal bearings of the case.

My predecessor, Mr. X., purchased this practice from Mr. Y., and obtained from him the usual bond preventing him from practising in the neighbourhood, except in consultation with himself; and *my* arrangement with Mr. X., of course, precluded *him* from doing likewise. Now, Mr. Y., who is living in a neighbouring town, is not content with visiting and attending those who send for him in a legitimate manner, but calls upon my parish patients and others to inquire after their health &c. &c. I should be glad if you would kindly give your opinion whether you think Mr. Y. could not be *legally* prevented from practising in the neighbourhood *after having once given up all claim to it to my predecessor, and signed the usual bond.* I am quite sure there is no moral right attending it. Such conduct on the part of any medical man is, I consider, worse than a tradesman touting for customers. Yours truly,

October 8th, 1878. W. O.

*** We apprehend that Mr. Y. could be legally prevented from practising, in accordance with his bond. It is true that the undertaking was not to our correspondent, but to his predecessor; but it was absolute, without which the power of sale by Mr. X., or at least the value of the practice he had to sell, must have been slight. Such is our view; but the question is one on which a legal opinion should be taken. In any case it would be most reprehensible for Mr. Y. to practise in the neighbourhood.—ED. L.

SPOONS AS MEASURES OF CAPACITY.

To the Editor of THE LANCET.

SIR,—Having had occasion recently to prescribe a mixture containing tincture of opium, forty minims to the ounce, tincture of hyoscyamus one drachm and a half, &c., for a case of delirium tremens, in doses of "one tablespoonful every four hours," I was much surprised on subsequently examining an ordinary tablespoon, and ascertaining its capacity, to find that it contained seven drachms and five minims!

It will thus appear that a tablespoon ceases any longer to be a definite measure of capacity, and, unless some standard measure be devised for small quantities, I fear some lamentable catastrophe will result—perhaps at no remote period. We have imperial pints and half pints, gills, &c. Why not also adopt "an imperial tablespoon," capable of containing a known and definite quantity? The variability of capacity is unfortunately not merely confined to tablespoons, but applies with equal propriety to wineglasses, teaspoons, and other small measures frequently employed for medical as well as domestic purposes. The difference of a few minims in the capacity of teaspoons is of very great import, whether we contemplate the effect of certain drugs on tender and susceptible children, or take into consideration the deleterious or poisonous nature of the agent employed *per se*; for instance, hydrocyanic acid or perchloride of mercury.

Pilular preparations are advantageous in this respect, that we know exactly the quantity of each drug prescribed, but from insolubility and slowness of action are frequently less suitable and efficacious in urgent cases.

Trusting some reform will speedily be adopted, and diminish the danger to life which prescribing unknown quantities necessarily entails,

I remain, Sir, your obedient servant,

Belfast, October 15th, 1878. J. A. M'MUNN, L.R.C.P. Edin.

Mr. J. D. James.—Application should be made to the Registrar of the General Council of Medical Education, addressed to the Office, 315, Oxford-street, London.

ELECTRIC BATHS.

To the Editor of THE LANCET.

SIR,—Could any of your readers give me information about electric baths? how they are produced, and in what class of cases they have been used?

Yours &c.,

October 21st, 1878. QUERIST.

Mr. Whitworth.—The claim established by loyal service is great; but as a promise was given to sign the usual bond, it would not be right to refuse to do so after what has occurred.

A CAUTION.

To the Editor of THE LANCET.

SIR,—I think I shall not be deemed intrusive by calling attention to a formula copied from "France" into Dr. Tilbury Fox's excellent work on "Skin Diseases," second edition, and recommended by him for the treatment of "lichen" and "prurigo."

Formula No. 141.

"℞ Strychniæ, gr. ½; ac. phosph. dil., ℥ij.; tinct. aur., ʒss.; inf. caryoph., ℥ij. Dose, ℥j, 3 times a day."

I, for one, would be decidedly averse from such a heroic dose.

Yours &c.,

October 21st, 1878. A PHYSICIAN.

*** The obvious typographical error in the above formula is corrected in the third (latest) edition, where the infusion of cloves is given at *eleven* ounces instead of two, the dose being half an ounce.—ED. L.